ES321 User Manual

Bluetooth Barcode Scanner

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Test Chart 331

1. Important Notice

In compliance with a number of International standards as well as reguations, ES321 is a highly qualified product at the technical and safety level. In this chapter enumerates the list of regulations which ES321 complies with for your reference.

Important Notices 1

1-1. FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

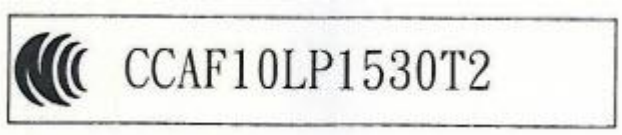
1-2. Conformity with Technical Regulations for specified radio equipment in Japan

Certificate Number: 204WW81000100

1-3. National Communication Commission

NCC Registration Number: NCC-RCB-05

Qualified serials number on device:



1-4. RoHS Compliance

The RoHS directive mandates that producers of electrical or electronic equipment sold into Europe must minimize or eliminate the following materials from their design, as they are considered health risks:

1. Lead
2. Mercury
3. Cadmium
4. Hexavalent Chromium
5. Polybrominated biphenyls (PBB)
6. Polybrominated biphenyl ethers (PBDE)

Committed to the environment, CanMax Technology makes the necessary changes to our products in order to comply with RoHS directive. This involves the process of converting the non-compliant components (for instance, electronics, Pc Boards, etc.) of our products into the compliant ones. We also improve the assembly processes to ensure the full compliance with RoHS directive. The measures that we take in conformity with RoHS directive would never cause any change in the product appearance, nor do they decrease functionality of the product. Most importantly, our product still provides reliable and excellent product performance as we promise.

1-5. Safety Precaution

- Do not stare directly at light beams.
- Do not directly touch the scanner window for reading performance might decrease if the window is dirty or scratched.
- Do not disassemble or modify the internal components from the scanner.
- Do not expose the scanner to any flammable source.
- Do not overcharge the battery.

Lithium-Ion polymer Battery

- The Lithium-ion polymer battery energy density is less than 400 Wh/L. Therefore, PSE certification does not require in this product.

- The first, initial charge will take up four hours to fully charge your battery.
- Battery Life time
  Memory Mode: Approximately 18000 scans (5 sec/per scan)
  Bluetooth Mode: Approximately 15000 scans (5 sec/per scan)
- Do not assemble or disassemble the battery without technical support.
- Do not use unspecified power adaptor to charge the battery.
- During the charging process, if red color LED indicator keeps flashing rapidly, terminate the charging, and return the scanner to authorized dealers.
- Once battery leakage or abnormal odor occurs, terminate the current operation, and return the scanner to authorized dealers.
- Once batteries leak, avoid contact with skins or eyes. To clean up the battery leakage, rinse the affected parts with fresh water, and consult the doctor immediately.

2.Introduction

Using this introductory chapter you will grasp physical aspects of ES321 with regard to the product appearance and specification. On top of it, the sections for Manual/Page layout will enable you to locate the topics of your interest through the manal more efficiently.

2-1. Product Features

ES321, the simple and functional design, and preserves its connection diversity using Bluetooth Technolgy. Furthermore, it expands configuraiton setttings to the level users are given much flexibility to well personalize the barcode scanner according their needs. From its lightweight product design through operational usability to functional versatility, the scanner of three-in-one multi-fucntionality is defninitley a select scanner to enhance your working effeciency as we have long committed ouselves to.

2-2. Product Specification

Model NO.		**ES321 Wireless Series**
Microprocessor		32 bits CPU
Main Battery Operation Times		8000 scans in Bluetooth Mode (5 sec/ per scan)
Memory Stroage		4MB
Supported Barcode		Code 39, INT 25, Industrial 2 of 5, Matrix 2 of 5, Codabar(NW7), Code-93, code-128, EAN-128, JAN/EAN/UPC and fully RSS code(GS1 Databar)
Optical Resolution		752(H)x480(V) pixels, 256 gray levels
Minimum PCS Value		0.45
Scan Engine	**CCD Type**	630nm Red LED Lamp, Linear CCD Image Sensor Scan rate: 100 scan/sec Scan Distance: 50mm～250mm
	Laser Type	Visiable Laser Diode 650nm 10 (25℃) Scan rate: 100 scan/sec Scan Distance: 50mm～350mm
Main Battery		Built-in Rechargeable Li-Polymer battery (3.7V,1100mAH) and charge via USB port
Wireless Communication		2.4 Ghz Bluetooth Class I
Keys		2 keys
LED indicator		3 color LED: red, green, blue
Beep Indicator		Configurable to turn off/on
Weight		CCD: 75g/ Laser: 85g
Dimension		89(L)x 40(W) x 17.5(H)mm
Environment Humidity		10% - 90%RH
Working Temperature		-10℃～40℃

Model NO.	ES321 Wireless Series
Power Consumption	CCD: 90mA / Laser: 60mA
Certification	FCC / CE/ RoHS approved, VCCI, Telec

2-3. Package Information

The contents of the package may vary depending on your order. While some primary devices avail the users of their fundamental functionality, some optional items are also available for your purchase to maximize efficiency of our product.

Inside the package of ES321 contain the following items:

- ES321 Barcode Scanner
- Barcode Scanner Neck Strap
- USB Cable
- Solution CD
- USB Power Supply (Optional)

Inside the package of ES321D contain the following items:

- ES321 Barcode Scanner
- Barcode Scanner Neck Strap
- USB Cable
- Solution CD
- USB Power Supply (Optional)
- Dongle / Bluetooth Module

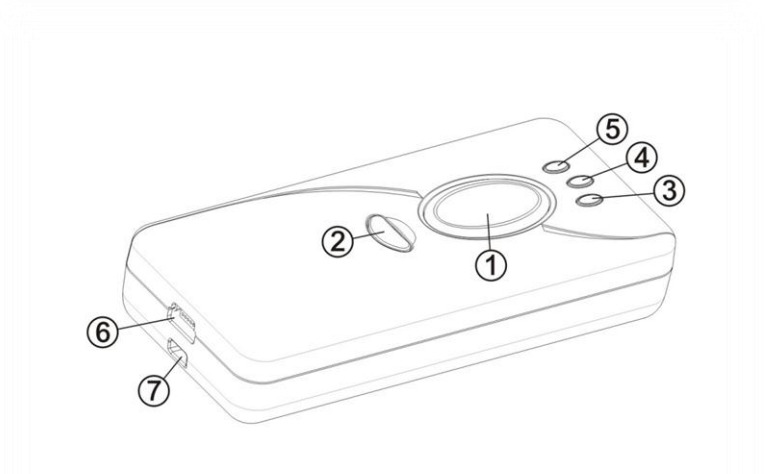
Browse Solution CD to locate the foolowing how-to references for troubleshooting problems in using ES321:

- Quick Start
- User Manual
- ISP Driver for Windows OS
- Utility Program

2-4. Supported Symbology

Symbology	Enabled/Disabled
UPC-A	Enabled
UPC-E	Enabled
EAN-13	Enabled
EAN-8	Enabled
Code-39	Enabled
Interleaved 2 of 5	Disabled
Industrial 2 of 5	Disabled
Matrix 2 of 5	Disabled
Codabar/NW7	Enabled
Code-128	Enabled
Code-93	Disabled
Code-11	Disabled
BarMsi	Disabled
BartPlessey	Disabled
Telepen	Disabled
BarRss14	Disabled
BarRSsLimit	Disabled
BarRSSStk	Disabled
BarRSSExp	Disabled
BarRSSExpStk	Disabled
UPC-A	Enabled
UPC-E	Enabled
EAN-13	Enabled
EAN-8	Enabled
Code-39	Enabled
Interleaved 2 of 5	Disabled
Industrial 2 of 5	Disabled
Matrix 2 of 5	Disabled
Codabar/NW7	Enabled
Code-128	Enabled
Code-93	Disabled

2-5. Product Overview



① Press down **Scan Button** to decode or store the barcode.

② Press down **Small Trigger** to perform versatile supplementary functions. For instance, pressing the key will lead to erasing barcode data which have been previously decoded in Memory Mode; it also works to pair the scanner with the Bluetooth devices in Bluetooth Mode.

③ **Good Read Indicator** indicates whether the barcode is successfully decoded. Green LED shows a successful decoding attempt.

④ **Mode Indicator** indicates the current operation mode. Blue LED stands for Bluetooth mode, green LED for Cable mode, and orange LED for Memory mode.

⑤ **Power Indicator** indicates the charge status. When the battery is running low, red LED light will be on to show a poor charge level. Once the charging process is completed, red LED will flash slowly to show a full battery charge.

⑥ **Strap Hole**

⑦ Secure the interface cable into **USB Host** in an attempt to transmit data or to charge the battery.

⑧ Replace the battery in the **Battery Compartment**.

2-6. Manual Layout

Chapter 1 Important Notices enumerates the list of rules and regulations which CM2D-600 conforms to as a qualified product.

Chapter 2 Introduction provides Product Specification, Product Information, Product Overview, and Manual /Page Layout.

Chapter 3 Knowing your Scanner introduces Configuration Flowchart, LED/Beeper Indication, and some basic operations with trigger buttons.

Chapter 4 Quick Start provides quick references to have you familiar with ES321 within a short time frame.

Chapter 5 Establish a Bluetooth Connection provides instructions on how to pair ES321 with different sorts of Bluetooth devices.

Chapter 6 Editing General Setting provides related setup barcodes for configuring general settings.

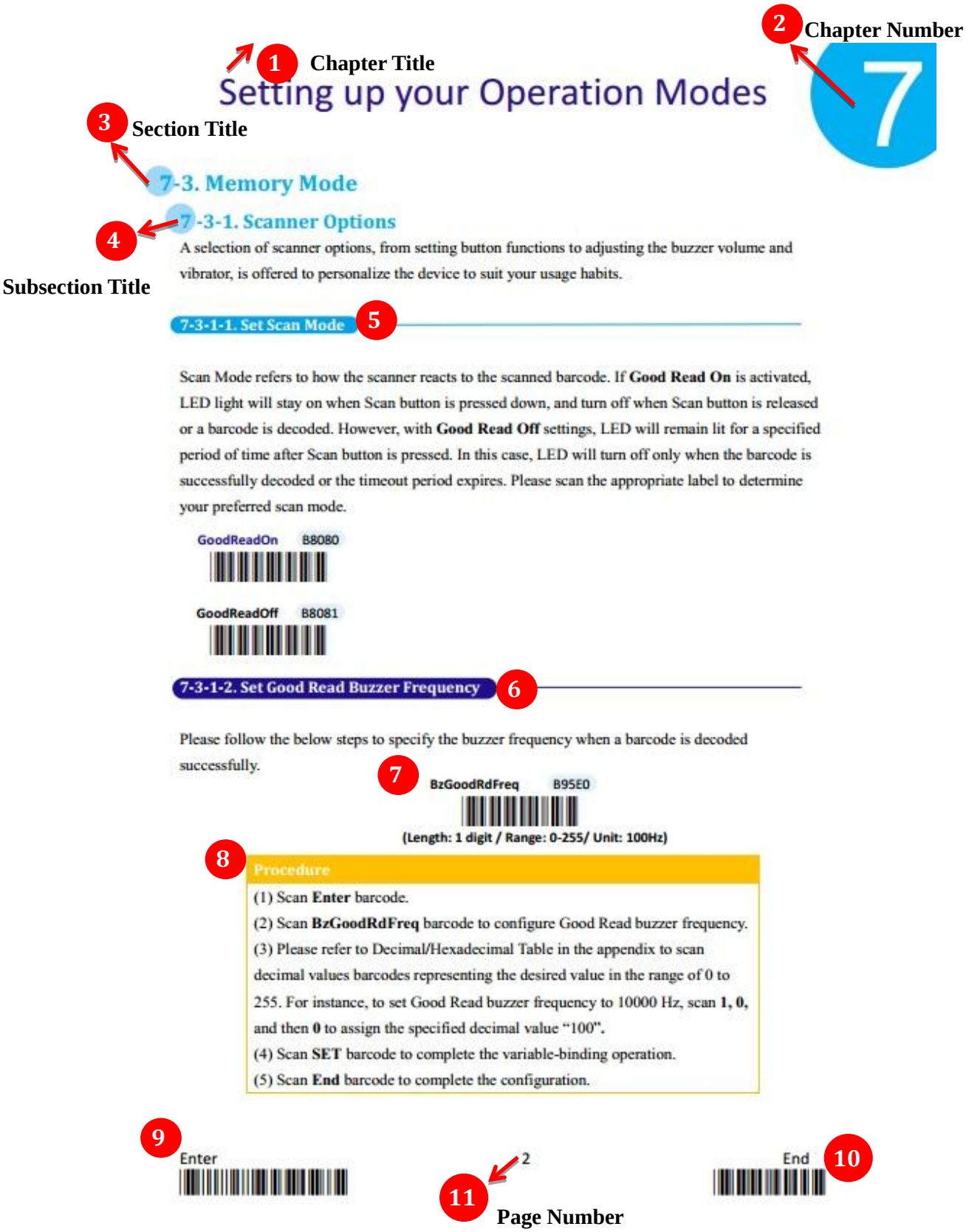
Chapter 7 Setting up your Operation Modes provides related setup barcodes for configuring three operation modes.

Chapter 8 Configuring Symbology provides related setup barcodes for symbology configurations.

Appendix A provides Decimal/Hexadecimal Table and ASCII Code Table for setting up special setup barcodes.

Appendix B provides sample barcodes which you can use for testing.

2-7. Page Layout


1 Chapter Title
2 Chapter Number
Setting up your Operation Modes
7
3 Section Title
7-3. Memory Mode
4 Subsection Title
7-3-1. Scanner Options
A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.
7-3-1-1. Set Scan Mode
5
Scan Mode refers to how the scanner reacts to the scanned barcode. If Good Read On is activated, LED light will stay on when Scan button is pressed down, and turn off when Scan button is released or a barcode is decoded. However, with Good Read Off settings, LED will remain lit for a specified period of time after Scan button is pressed. In this case, LED will turn off only when the barcode is successfully decoded or the timeout period expires. Please scan the appropriate label to determine your preferred scan mode.
GoodReadOn B8080
GoodReadOff B8081
7-3-1-2. Set Good Read Buzzer Frequency
6
Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.
7
BzGoodRdFreq B95E0
(Length: 1 digit / Range: 0-255/ Unit: 100Hz)
8
Procedure
(1) Scan Enter barcode.
(2) Scan BzGoodRdFreq barcode to configure Good Read buzzer frequency.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan 1, 0, and then 0 to assign the specified decimal value "100".
(4) Scan SET barcode to complete the variable-binding operation.
(5) Scan End barcode to complete the configuration.
9
Enter
11
2
Page Number
End
10

5

Function Title framed with the oval shape in deep sky blue generally gives the brief description regarding the relevant functions. However, it might also work to define regular setup barcodes which are scattered from Chapter 6 to Chapter 8. Configuring this type of barcode normally requires simply one-time scan to either turn on/off its functionality or to specify a predefined value, which is rather straightforward.

6

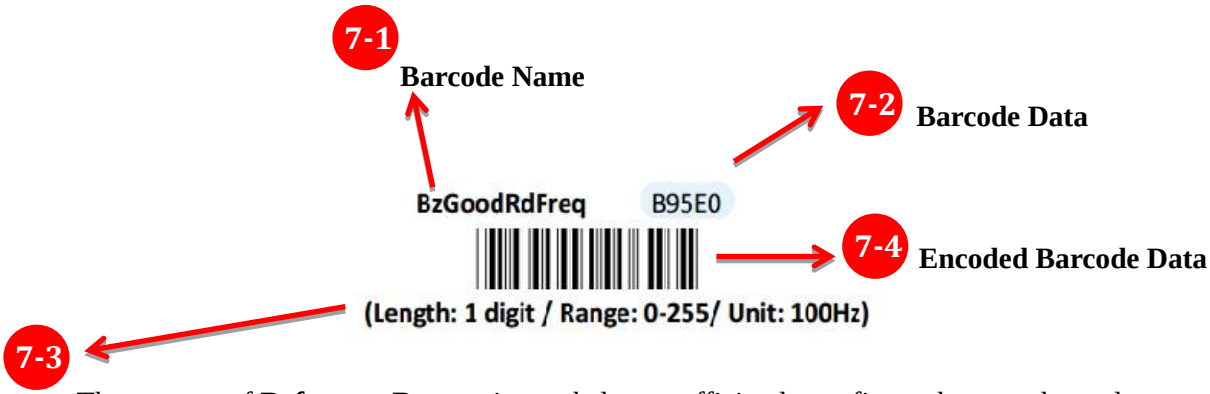
Function Title framed with the oval shape in dark blue is to define special setup barcodes. Configuring special setup barcode usually demands more than one scan to complete relevant configurations.

7

Based on Code-39, the list of setup barcodes throughout the manual will be structured as shown in below figures:

For regular setup barcodes

For special setup barcodes



The concept of **Reference Range** aims to help you efficiently configure the setup barcode with the suggested value in the range. In the example, you are advised that the value is supposed to be one digit in length, to fall on the range from 0 to 255and will be measured in

8

In following **Configuration Steps**, you will get the clear idea of how to set up these special barcodes.

9

Enter label, arranged in the bottom of every page, is one of the frequently-used barcodes when it comes to conducting your barcode-scanning activities. To ensure a valid configuration, please be advised that you always read **ENTER** barcode first before proceeding with other setup barcodes.

10

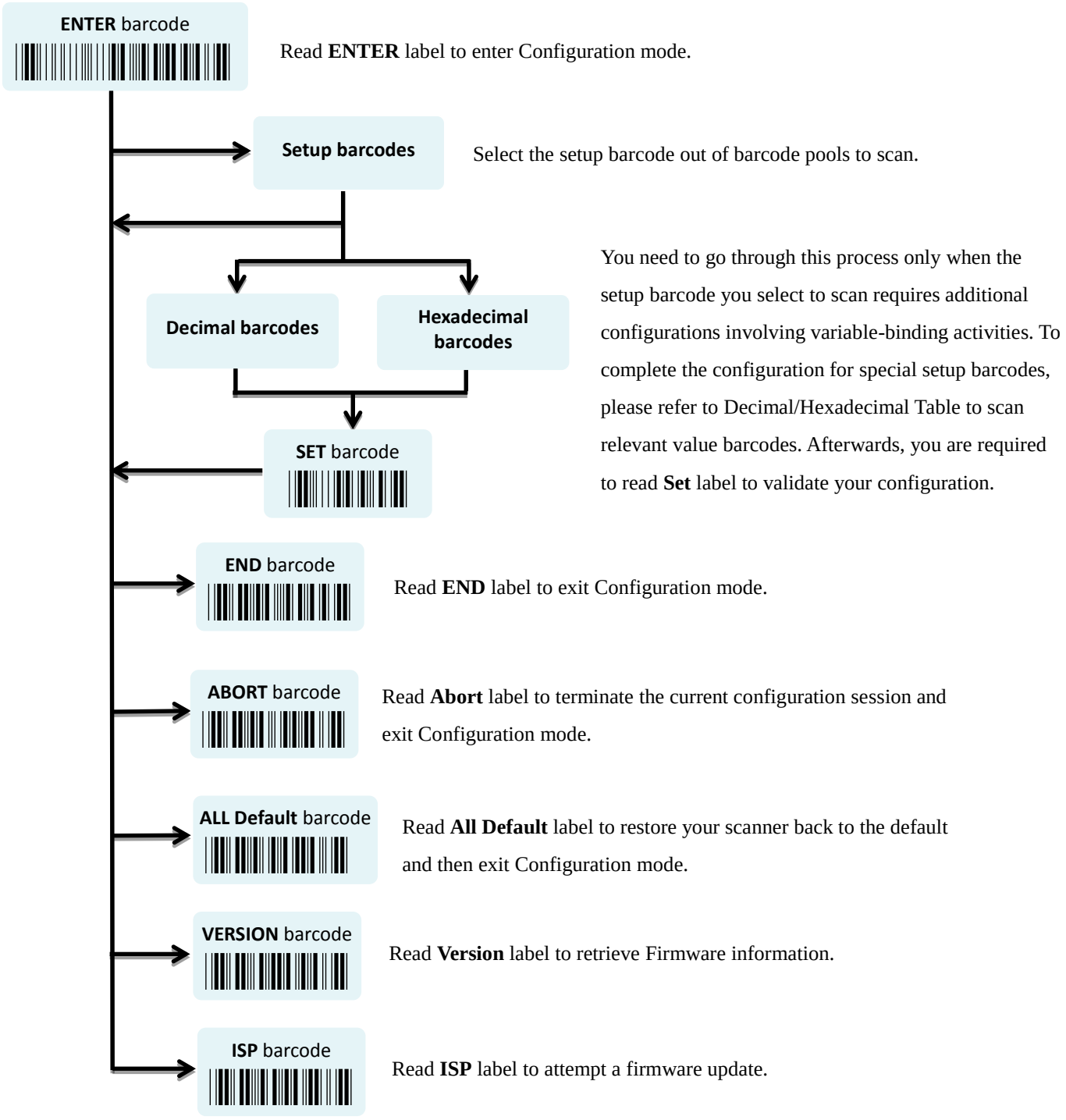
Like Enter label, **End barcode** is labeled as another frequently-used barcode. It is mandatory to scan End barcode at the end to validate your configuration. You can easily locate it at the bottom of every page.

3. Knowing your Scanner

Through this informational chapter you will be exposed to a variety of helpful knowledge regarding ES321, from LED/beeper indications to the functionality of button triggers, before you start with the scanner. Not only will it assist you in correctly and efficiently using ES321 but also help to use your time and efforts more wisely. It is encouraged to go back to this chapter for a quick reference whenever you encounter difficulties in operating the machine.

3-1. Configuration Flowchart

The below figure illustrates the sequences of scan events leading up to a positive scan result. The improper operation will not only waste your efforts but also likely produce the disappointing result which might be mistakenly viewed as a product defect. Please be advised to refer to the flowchart whenever you attempt a scan.


ENTER barcode
Read ENTER label to enter Configuration mode.
Setup barcodes
Select the setup barcode out of barcode pools to scan.
Decimal barcodes
Hexadecimal barcodes
You need to go through this process only when the setup barcode you select to scan requires additional configurations involving variable-binding activities. To complete the configuration for special setup barcodes, please refer to Decimal/Hexadecimal Table to scan relevant value barcodes. Afterwards, you are required to read Set label to validate your configuration.
SET barcode
END barcode
Read END label to exit Configuration mode.
ABORT barcode
Read Abort label to terminate the current configuration session and exit Configuration mode.
ALL Default barcode
Read All Default label to restore your scanner back to the default and then exit Configuration mode.
VERSION barcode
Read Version label to retrieve Firmware information.
ISP barcode
Read ISP label to attempt a firmware update.

Enter

End

3-2. LED & Beeper indications

LED and Beeper signals both serve to deliver visual or acoustic messages regarding the status of the ongoing operation. Either color changes or sound pitches and melodies will suffice to indicate a scan result as advance notification. Please refer to the below chart to use LED and Beeper indications for your benefit while working on the device.

Functions	Beeper Sequence	LED indication
Power on the scanner		
Successfully decode a barcode		Green LED flashes once
Successfully scan a regular setup barcode	high-low tone	
Successfully scan a special setup barcode	High-low-high-low notes	
Successful enter configuration mode	A set of five ascending notes	Red, green, and then blue LEDs keep flashing slowly and alternatively
Successfully enter firmware update process	After One high tone emit five quick short notes followed by a pause and then two notes.	Red and green LEDs keep flashing slowly and alternatively
Complete scanner configuration	A melody from high notes to low ones	
Switch to data-transmission mode	One high note followed by two low short notes	The orange LED keeps flashing rapidly.
Successful attempt to transmit all the data	One long beeping note sings first, and then a short note sounds after data is transmitted.	
Charging Attempt		A solid red LED indicates the ongoing charge process. Once the charging is completed, the red LED will start flashing slowly as a full battery charge indication.
Unknown Failure		Red LED flashes once as a warning.
Timeout for configuration mode	Two ascending notes and then three descending notes	

Functions	Beeper Sequence	LED indication
Cable Mode		
Switch to Cable mode	A melody composed of three ascending notes, another two ascending notes and one comparatively high note	Green LED keeps flashing steadily
Turn off automatic charge	Two descending short notes	
Turn on automatic charge	Three high-pitched notes	
Memory Mode		
Switch to Memory mode	Three ascending notes followed by a comparatively high note	Orange LED keeps flashing steadily
Successful attempt to erase all saved barcodes	Three high-pitched long sounds	
Successfully attempt to delete one single data	One note followed by two shorter sounds.	
Bluetooth Mode		
Switch to Bluetooth mode	Three same low notes followed by one high note	Blue LED keeps flashing steadily
Successful Bluetooth pairing	Two consecutive notes	A solid Blue LED will indicate a successful attempt.
Terminate Bluetooth connection	Three descending notes	
Unsuccessful Bluetooth pairing	Three high-pitched beeping sounds	

3-3. Leverage your Scanner with Button Triggers

Two supplementary button triggers, Scan Button and Small Trigger, are to provide fundamental functionality from reading a barcode to deleting a scanned record, but, more importantly, giving them a press sometimes enables you to save the efforts in conducting complex barcode-scanning practices. Although button triggers, due to their limits, would never suffice to cover all the major and minor tasks which setup barcodes always do, skillfully using these two buttons still serves the basic needs yet in a more convenient way. In the following section will demonstrate how to execute specific operations via either a push of single button or a trigger of the button combination.

3-3.1. Scan Action

To decode a barcode, you may simply give a gentle push of **Scan Button** to achieve the attempt.

3-3.2. Mode Switch

Please follow blew steps to switch among operation modes.

Procedure

(1) Hold **Scan Button** till LED light turns a solid color.
(2) Release **Scan Button**.
(3) The color of steadily flashing LED individually indicates the current operation mode: **green stands for Cable mode, orange for Memory mode, and blue for Bluetooth mode.**

3-3.3. Turn on/off Charge

Please follow the below steps to turn on or off the automatic charge.

Procedure

(1) Switch to **Cable mode.**
(2) Hold **Small Trigger** to trigger off a rapidly blinking green LED light.
(3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger.**
(4) Release both **Scan Button** and **Small Trigger.**

3-3.4. Deletion of One Single Data

Please follow the below steps to delete a specified barcode.

Procedure

(1) Switch to **Memeory Mode.**
(2) Push **Small trigger** while aiming your scanner at the barcode you want to delete.
(3) Release **Small Trigger.**

3-3.5. Deletion of All Transmitted Data

Please follow the below steps to delete all the saved barcode.

Procedure
(1) Switch to **Memory mode.**
(2) Hold **Small Trigger** to trigger off a rapidly blinking orange LED light.
(3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger.**
(4) Release both **Scan Button** and **Small Trigger.**

3-3.6. Transmission of Saved Barcode

Please follow the below steps to transmit the saved barcode in the memory.

Procedure
(1) Hold **Small Trigger** till LED light turns solid color.
(2) Release **Small Trigger** to enter data .The rapidly blinking orange LED indicates the scanner is ready for data transmission.
(3) Press down **Scan Button** to transmit all the saved barcode data.

3-3.7. Pairing with Bluetooth Devices

Please follow the below steps to pair the scanner with other Bluetooth devices.

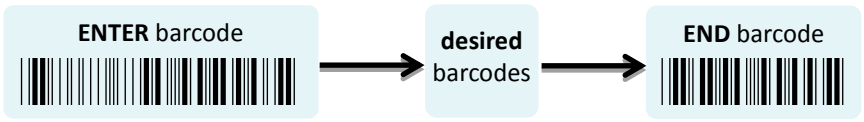
Procedure
(1) Switch to **Bluetooth mode**.
(2) Hold **Small Trigger** to trigger off a rapidly blinking LED light.
(3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger.**
(4) Release both **Scan Button** and **Small Trigger.**

4. Quick Start

Through straightforward instructions provided in this chapter, you will shortly familize with fudamental operations of the scanner, and further know how to exloit the device in your tasks, instead of painstakingly researching into the whole manul. This how-to guide will focus more on general topics than specific or advanced subjects. If you are looking for the latter, please refer to other chapters for some detailed explanation.

4-1. Configuration Flowchart

Please make sure you always start a scan sequence with **ENTER** barcode and end with **END** barcode as a successful attempt. Both labels can also be located on the bottom of each page.



4-2. Set up your Scanner

4-2-1. Operation Mode

We offer a selection of mode combinations, including 2in1 and 3in1 functions, for your convenience to improve efficiency at work. Before reading the below barcodes, please scan Enter label first to ensure a successful configuration.

Cable A40C0

Memory A40C1

Cable+Mem A40C2

Bluetooth A40C3

Cable+BT A40C4

Mem+BT A40C5

Cable+Mem+BT A40C6

Enter

End

4-2-2. Output Interface in Cable Mode

After scanning Enter barcode, specify which output interface the device works with in Cable mode.

USB HID B81D1

USB COM B81D2

RS232 B81D3

4-3. Basic Scanner Operations

You can perform most of below basic operations by either scanning the barcode sequences or using the button triggers.

4-3-1. Mode Switch

Button Trigger

Keep holding Scan Button till the LED light turns from a rapidly blinking color into a solid color. After a release of Scan Button, you, by observing the LED light colors, can learn which operation mode your scanner is switched to.

Scan Sequence

After reading **ENTER** label, scan the below appropriate barcode to switch to the desired operation mode.

To Cable Mode ZTOS

To BT Mode ZTOB

To Mem Mode ZTOM

Enter

End

4-3-2. Transmit All Barcode Data

Button Trigger

1. Secure the interface cable to both the barcode reader and the Host PC Open the preferred word processing software to receive the scanned data.
2. After holding Small Trigger long enough to trigger off a solid LED light, release Small Trigger.
3. While the orange LED starts flashing rapidly, press Scan Button once again to transmit all barcode data.

Scan Sequence

Scan **Data Memory Tx** barcode after reading **Enter** label.

Data Memory Tx ZMTX

4-3-3. Clear All Saved Barcode Data

Button Trigger

1. Configure the scanner to be in Memory mode.
2. While holding Small Trigger till orange LED starts blinking rapidly, press down Scan Button.
3. Release Scan Button and Small Trigger.

Scan Sequence

First read **Enter** label, and then scan the following barcode:

Data Memory Clear ZFCA

4-3-4. Clear One DingleBarcode Data

Button Trigger

1. Configure the scanner to be in Memory mode.
2. Press down Small Trigger and scan the barcode you want to remove from the flash memory.

4-3-5. Auto-delete All Transmitted Data

You may program the scanner by scanning **Enable** label to auto delete the barcode data that was just transmitted after reading **Enter** barcode.

Disable BE7A0

Enable BE7A1

4-3-6. Attempt Firmware Update

Please read **Enter** label first, and then scan **ISP** barcode before applying relative scanner firmware updates.

ISP ZISP

4-4. How to Make your Scanner Work with Bluetooth Dongle A-302

4-4-1. Pair with Bluetooth Dongle A-302

1. Make sure the Bluetooth dongle is well secured into the USB port of the Host PC.
2. Scan **ENTER** barcode.
3. Scan **To BT Mode** barcode to enter Bluetooth mode.

To BT Mode ZTOB

4. Press down either Scan Button or Small Trigger to establish Bluetooth connection. A solid Blue LED indicates a successful attempt.
5. Open the referred word processing software to receive the scanned barcode data.

4-4-2. Disable Pairing Function

Once a Bluetooth connection is established, **Disable** the pairing function, after scanning **Enter** barcode, to avoid the incident of mistakenly repeating the pairing process.

Disable C4280

Pair C4281

4-4-3. Type of Bluetooth Connection

The type of Bluetooth connection varies according to the Bluetooth device you attempt to pair the scanner with. Whenever you need to establish a Bluetooth connection, specify this information out of six alternatives provided.

SPP Slave C41D1

SPP Master C41D2

HID C41D3

iOS C41D4

A303 C41D5

A302 C41D6

5. Establish a Bluetooth Connection

ES321 fetures handy scanner operations via Bluetooth technoglogy by offering great flexibility in the Bluetooth connection types, which enables you to connect your scanner with assorted wilreless Bluetooth devices. This chapter is thus to provide explanatory instructions on how to establish a Bluetooth connection between ES321 with other Bluetooth devices.

Establish a Bluetooth Connection

5

5-1. Bluetooth Connection Reference Chart

Before you gear up for a Bluetooth connection, it is significant to figure out the type of wireless Bluetooth devices which the scanner is connected with since the associated procedures considerably vary with the device types. The below reference chart, as a precaution, shows the relation between available connection modes and their individual potential users to ensure a good start for a successful Bluetooth connection.

Connection Mode	Potential Users
Slave	Those who intend to connect the scanner with third-party or built-in dongles and receive data via a terminal application For Slave connection mode, the scanner remains inactive and waits for connection request.
Master	Those who intend to connect the scanner with third-party or built-in dongles and receive data via a terminal application For Master connection mode, the scanner will take an active role in the pairing process, meaning it will actively search for available Bluetooth devices to establish a Bluetooth connection.
HID	Those who intend to connect the scanner with third-party or built-in dongles and receive data via the available word-processing applications, such Microsoft word, Notepad and so on.
iOS	Those who intend to receive data via iOS products, such as iPhone and iPad.
A-303 Dongle	Those who intend to establish a connection with Bluetooth dongle A-303.
A-302 Dongle	Those who intend to establish a connection with Bluetooth dongle A-302.

5-2. Set up your Own Bluetooth Connection

As far as configurations of Bluetooth connection are concerned, this section aims to exemplify how you are able to establish a Bluetooth connection between ES321 and Bluetooth devices in hands via step-by-step instructions.

5-2-1. Slave Connection Mode

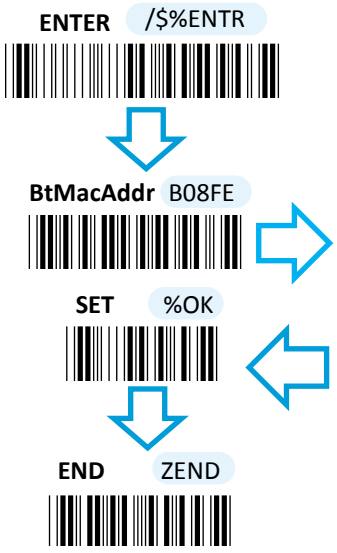
Step 1

Configure the scanner either using the utility program or scanning programming barcodes programming. By means of **the utility program** provided, you need not worry about the incorrect barcode sequence which possibly leads to the unexpected and wrong result. However, another alternative, **scanning programming barcodes,** is still offered if you pursue a more efficient configuration of the device. In case that you would rather not take time to figure out how to exploit the utility program, directly scanning the sequence of **programming barcodes** will work for you.

Scanning Programming Barcodes

1-1. Configure **Output Interface** of the scanner to be **Slave** by scanning the sequence of barcodes as the below illustration shows.

1-2. Configure **Mac Address** information to be the specified value “000000000000” by scanning the sequence of barcodes as the below illustration shows.

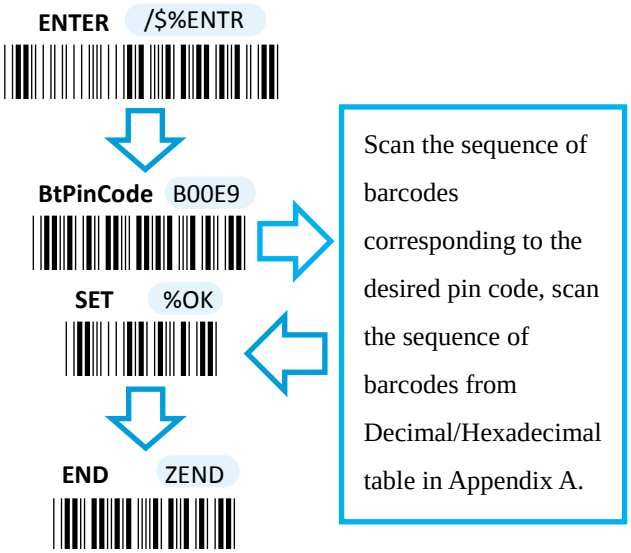


Scan the sequence of barcodes corresponding to “000000000000” from Decimal/Hexadecimal table in Appendix A.

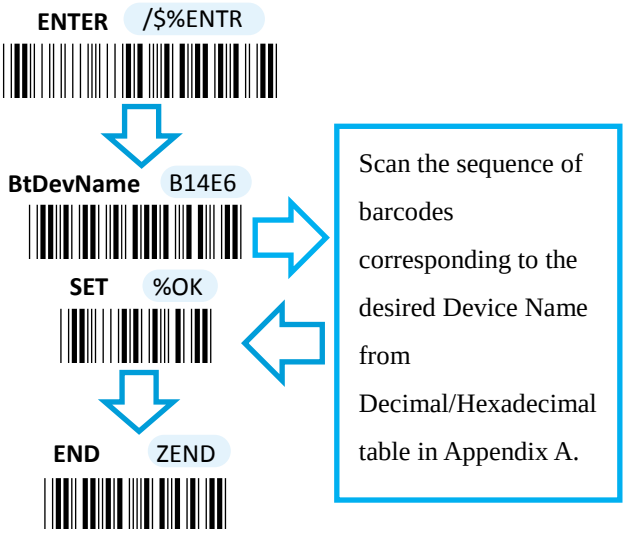
Enter

End

1-3. Configure **Pin Code** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtPinCode B00E9
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired pin code, scan the sequence of barcodes from Decimal/Hexadecimal table in Appendix A.

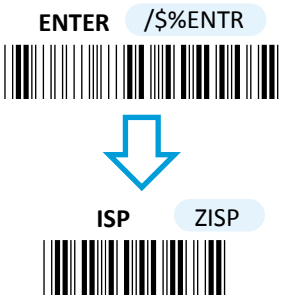
1-4. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtDevName B14E6
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired Device Name from Decimal/Hexadecimal table in Appendix A.

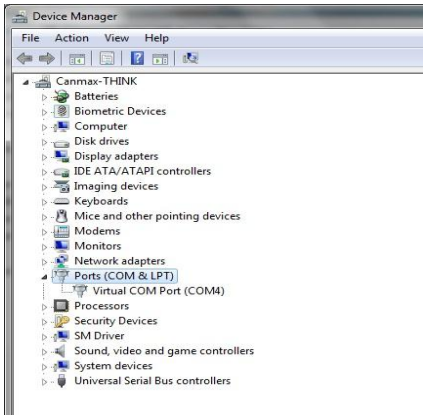
Using Utility Program

1-1. Please have your scanner connected to Host PC using USB cable.

1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



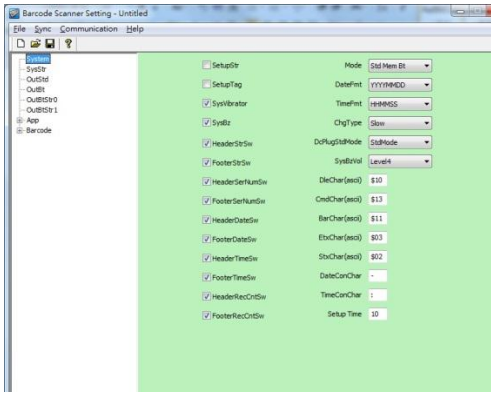
1-3. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.



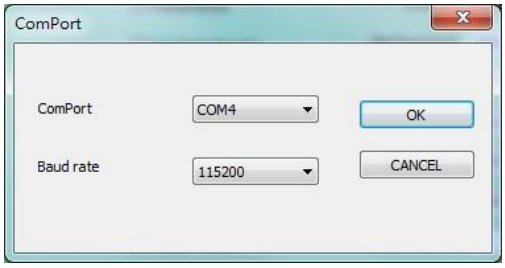
Establish a Bluetooth Connection

5

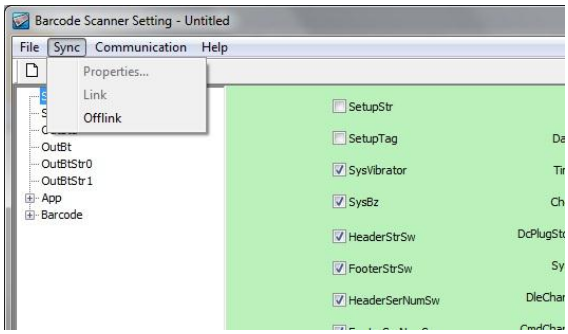
1-4. Invoke the utility program located in Product CD.



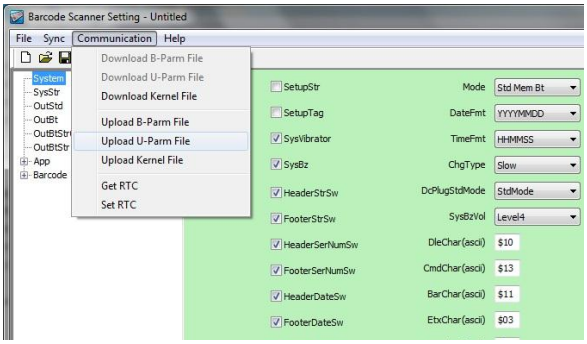
1-5. Select **Sync> Property.** In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in step 3 and leave Baud rate with its default. In the example, configure it with COM4.



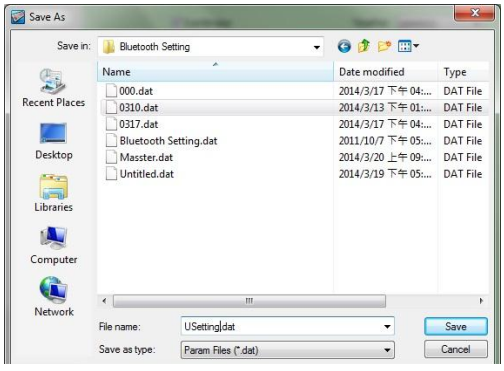
1-6. Select **Sync> Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.

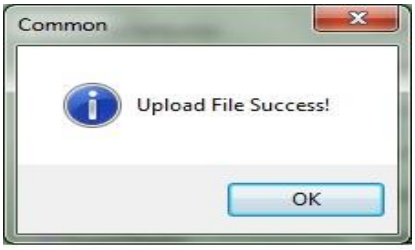


1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.

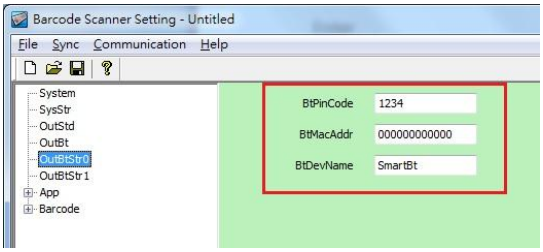


Establish a Bluetooth Connection

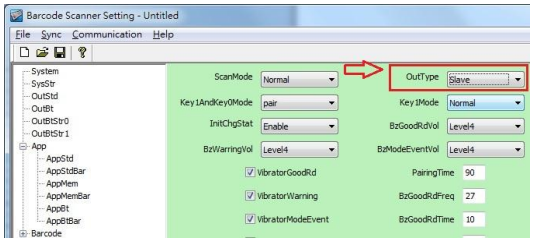
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



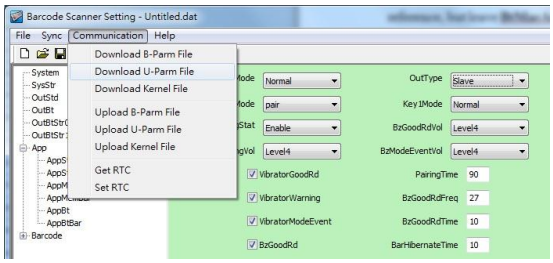
1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but leave **BtMacAddr** with the default value, **000000000000**



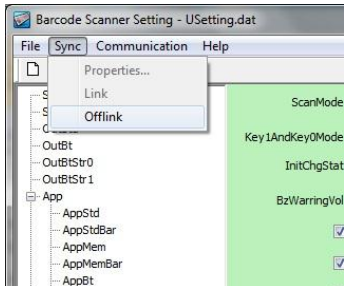
1-11. In the tree view, select **App**>**AppBt.** In the right panel, Select **Slave** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



1-12. Select **Communication**>**Download U-Parm file** to apply the cutomized settings to the scanner.



1-13. Select **Sync**> **Offlink** to complete the configuration.



Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.

ENTER /$%ENTR → To BT Mode ZTOB

2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.

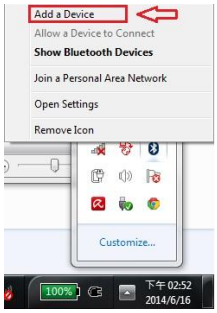
ENTER /$%ENTR → BT Pairing ZPAR

IMPORTANT: Please properly perform **Step 2-1 and 2-2** to ensure the dongle is able to detect the scanner at any time. While following the below steps to proceed with the configuration, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down either Scan Button or Small Trigger once to wake up the scanner.

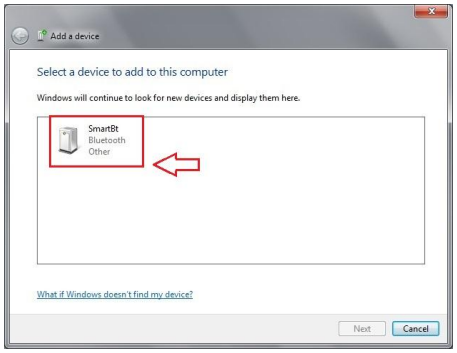
Establish a Bluetooth Connection

2-3. Secure third-party dongle into Host PC and confirm the scanner stays active in Bluetooth mode.

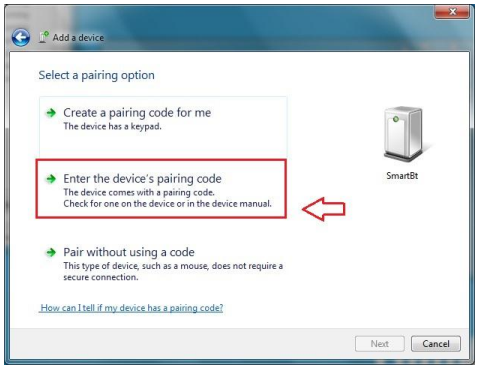
2-4. Right-click on Bluetooth icon on the taskbar and select **Add a Device** in the pop-up submenu.



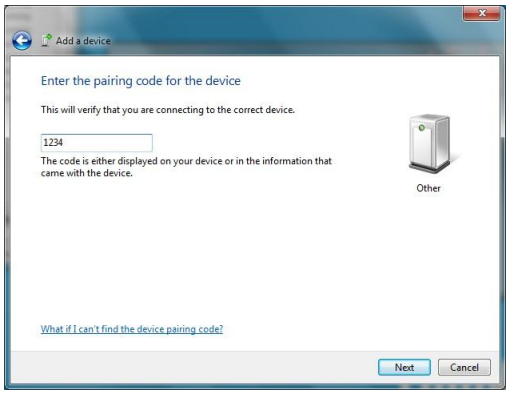
2-5. In the list box of **Add a Device** dialogue box will display all the available Bluetooth devices after a search. Select the device with the name which you specify for the scanner while using the utility application to program it. In this example, click on **SmartBt** item. Then, hit **Next** button.



2-6. Select **Enter the device's pairing code** and then hit **Next** button.


Add a device
Select a pairing option
Create a pairing code for me
The device has a keypad.
Enter the device's pairing code
The device comes with a pairing code.
Check for one on the device or in the device manual.
Pair without using a code
This type of device, such as a mouse, does not require a secure connection.
How can I tell if my device has a pairing code?
SmartBt
Next
Cancel

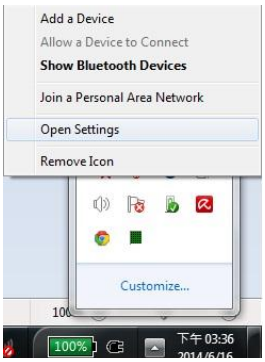
2-7. For verification, enter the valid passcode in Passcode field. In this example, input the passcode, **1234**.


Add a device
Enter the pairing code for the device
This will verify that you are connecting to the correct device.
1234
The code is either displayed on your device or in the information that came with the device.
Other
What if I can't find the device pairing code?
Next
Cancel

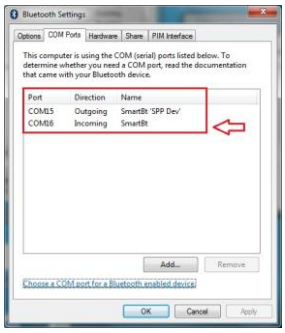
2-8. A message will appear to indicate the dongle and the scanner have been paired successfully. Press down **Close** button to close **Add a device** dialogue box.

Add a device
This device has been successfully added to this computer
Windows is now checking for drivers and will install them if necessary. You may need to wait for this to finish before your device is ready to use.
To verify if this device finished installing properly, look for it in Devices and Printers.
SmartBt
Close

2-9. Right-click on Bluetooth icon on the taskbar and then select **Open Settings** to look up the created outgoing COM port info.



2-10. In the **Bluetooth Setting** dialogue box, click on **COM ports** tab. From the list box of **COM Ports** tab, you are able to retrieve the outgoing COM ports information. Close dialogue box by hitting **OK** button. In this example, the outgoing COM port is set to COM15.

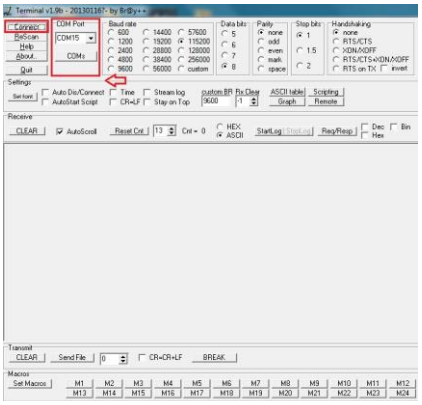


Step 3

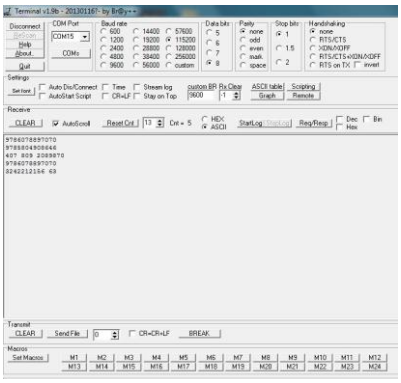
Configure the terminal software.

3-1. Launch the existing terminal emulation program. We will demonstrate the case with a free terminal emulation application, Terminal.

3-2. Properly set **COM Port** value according to information you obtain in **Step 2-10**, and then hit **Connect** button to ensure the termial application is connected. In this example, select COM15 from the combo box.



3-3. After a few seconds, the scanner will emit a short, rapid note along with a solid blue LED to indicate a successful Bluetooth connection. Now, you are able to receive barcode data via terminal software.



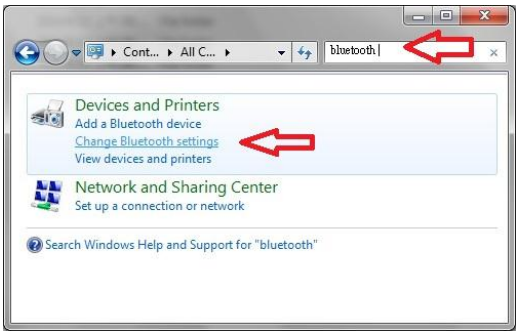
5-2-2. Master Connection Mode

Step 1

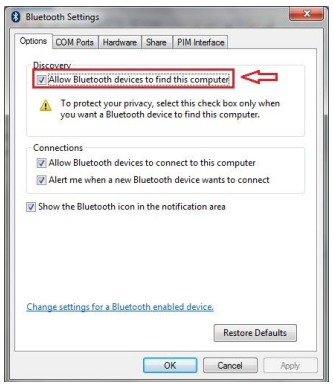
Configure Bluetooth settings, look up for the MAC address of your Bluetooth dongle, and create an incoming port.

1-1. Secure third-party Bluetooth dongle into Host PC.

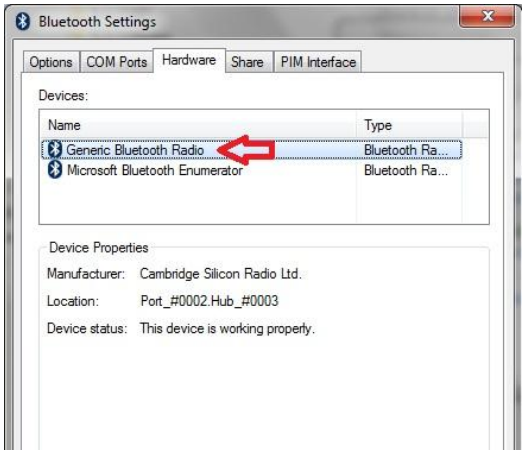
1-2. In **Control Panel**, type **Bluetooth** in search box. In the list of search results, click on **Change Bluetooth Settings** item.


Cont... ▸ All C... ▸
bluetooth
Devices and Printers
Add a Bluetooth device
Change Bluetooth settings
View devices and printers
Network and Sharing Center
Set up a connection or network
Search Windows Help and Support for "bluetooth"

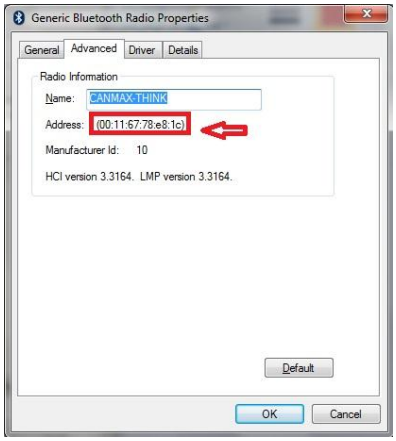
1-3. In **Bluetooth Settings**, click on **Options** tab to check **Allow Bluetooth devices to find this computer** option.


Bluetooth Settings
Options
COM Ports
Hardware
Share
PIM Interface
Discovery
Allow Bluetooth devices to find this computer
To protect your privacy, select this check box only when you want a Bluetooth device to find this computer.
Connections
Allow Bluetooth devices to connect to this computer
Alert me when a new Bluetooth device wants to connect
Show the Bluetooth icon in the notification area
Change settings for a Bluetooth enabled device.
Restore Defaults
OK
Cancel
Apply

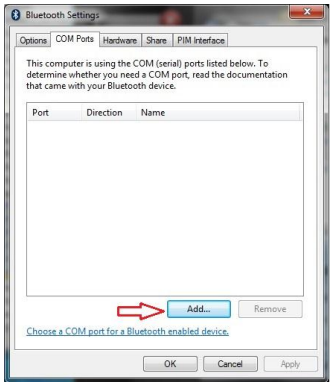
1-4. Switching to **Hardware** tab in the **Bluetooth Settings**, d-click on **Generic Bluetooth Radio** item in the **Device** list box.



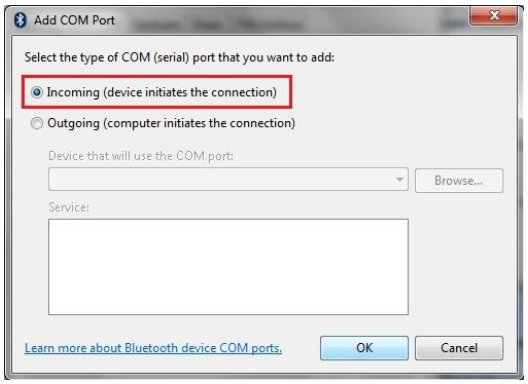
1-5. In **Generic Bluetooth Radio Properties**, retrieve MAC address of the plugged-in Bluetooth dongle, which is illustrated in the below figure and marked with red frame. Please write down the info for configuring your scanner later on. In this example, Mac address info is **00116778E81C**. Click **OK** button to return to **Bluetooth Settings**.



1-6. Click on **COM Ports** tab to add an incoming port. In **COM Ports** tab, hit **Add** button to invoke **Add COM Port** dialogue box.



1-7. In **Add COM Port** dialogue box, select **Incoming (device initiates the connection)** option and then hit **OK** button to initiate the process.


Add COM Port
Select the type of COM (serial) port that you want to add:
Incoming (device initiates the connection)
Outgoing (computer initiates the connection)
Device that will use the COM port:
Browse...
Service:
Learn more about Bluetooth device COM ports.
OK
Cancel

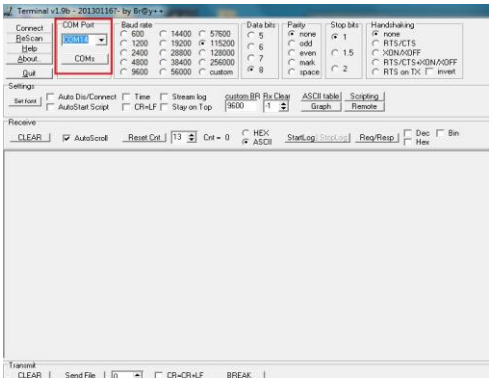
1-8. Once the incoming port is successfully generated, the list box in **COM Ports** tab will show associated information regarding the incoming port. In the example, the created incoming port is set to COM14. Press down **OK** button to close **Bluetooth Settings** dialogue box.

Step 2

Configure the existing terminal application.

2-1. Run the terminal software. In the example, we will demonstrate the case with the free terminal emulation application, Terminal.

2-2. Correctly configure **COM Port** with the value matching the generated incoming COM port, and then press down **Connect** button to ensure the termial application is connected. Keep the application running in the background.



Step 3

Configure your scanner either using the utility program or scanning programming barcodes. Two alternatives take different approaches to serve the same purpose. Select **utility program** to set up the device if you incline to avoid from dealing with lengthy and problematic barcode sequences which constantly end up nullifying your efforts. For those who prefer a straightforward solution, it is suggested to scan the sequence of **programming barcodes** to have your device programmed before use.

Scanning Program Barcodes

3-1. Configure **Output Interface** of the scanner to be **Master** by scanning the sequence of barcodes as the below illustration shows.

ENTER /$%ENTR

Master C41D2

END ZEND

3-2. Configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.

ENTER /$%ENTR

BtMacAddr B08FE

SET %OK

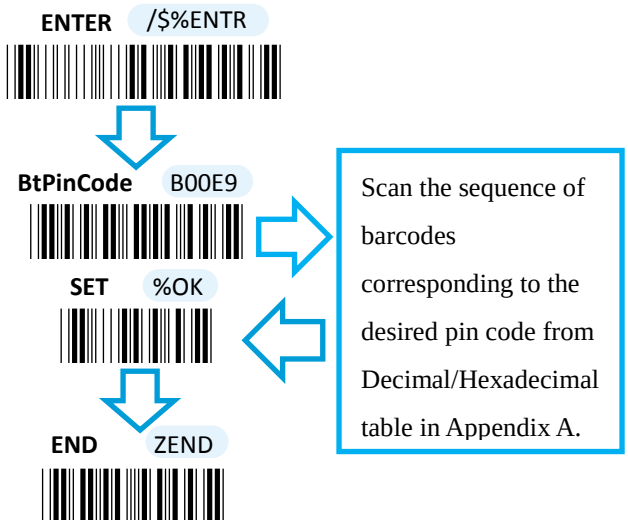
END ZEND

Scan the sequence of barcodes corresponding to the actual MAC address of the dongle from Decimal/Hexadecimal table in Appendix A.

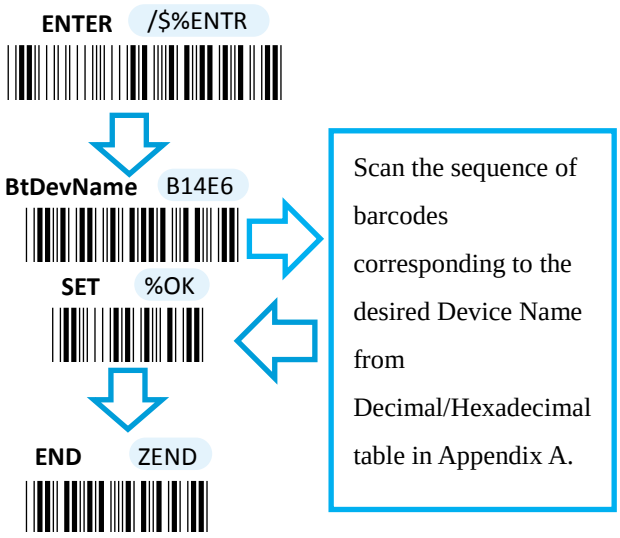
Enter

End

3-3. Configure **Pin Code** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtPinCode B00E9
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired pin code from Decimal/Hexadecimal table in Appendix A.

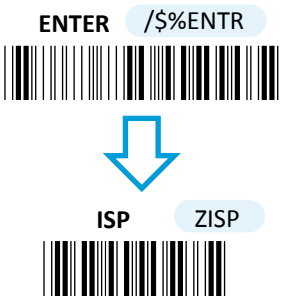
3-4. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtDevName B14E6
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired Device Name from Decimal/Hexadecimal table in Appendix A.

Using Utility Program

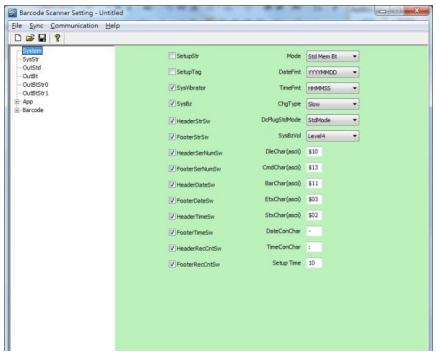
3-1. Please have your scanner connected to Host PC using USB cable.

3-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.

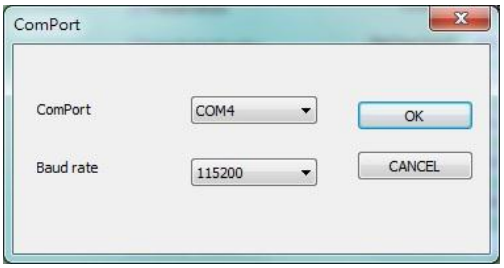


3-3. Go to **Control Panel** > **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.

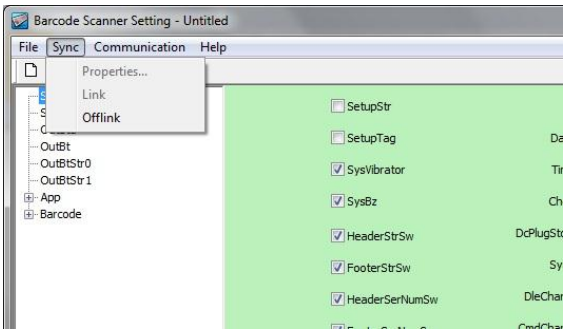
3-4. Invoke the utility program located in Product CD.



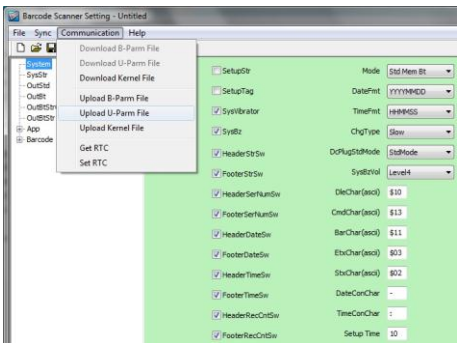
3-5. Select **Sync**> **Property**. In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



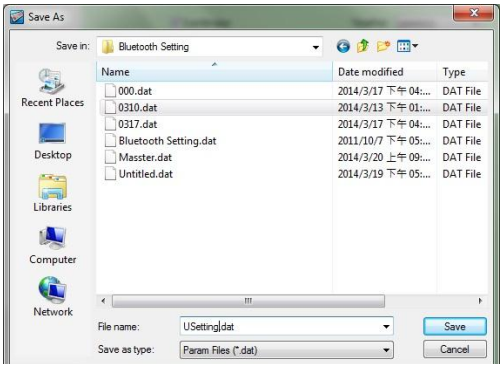
3-6. Select **Sync**>**Link** to link the scanner with the utility program. Once the link is successfully established, **Link/Property** options in Sync menu will be greyed out and the status bar will show associated information.



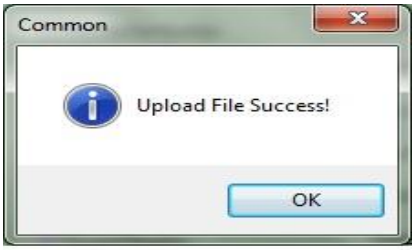
3-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.



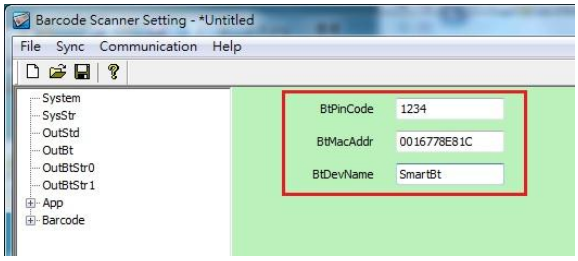
3-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



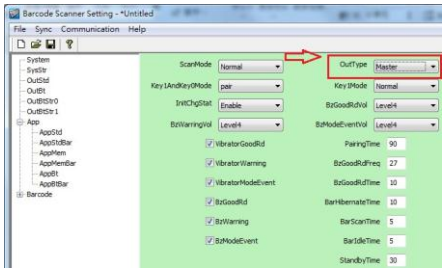
3-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



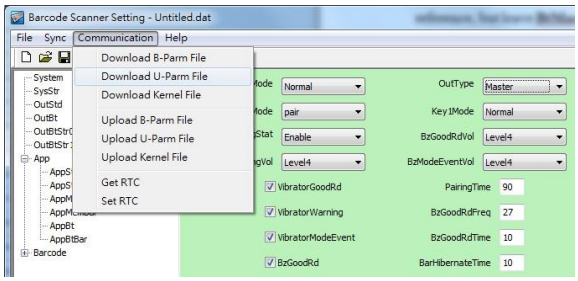
3-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



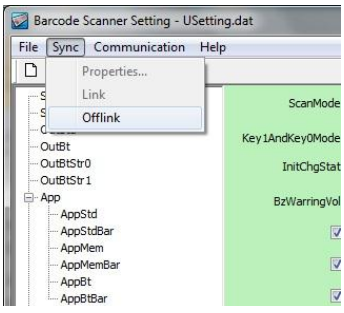
3-11. In the tree view, select **App**>**AppBt.** In the right panel, Select **Master** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



3-12. Select **Communication**>**Download U-Parm file** to apply the customized settings to the scanner



3-13. Select **Sync**> **Offlink** to complete the configuration.



Establish a Bluetooth Connection

Step 4

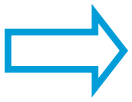
Initiate the process to pair the scanner with third-party Bluetooth dongle.

4-1. Please switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.

ENTER /$%ENTR



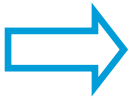
To BT Mode ZTOB

4-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger til blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.

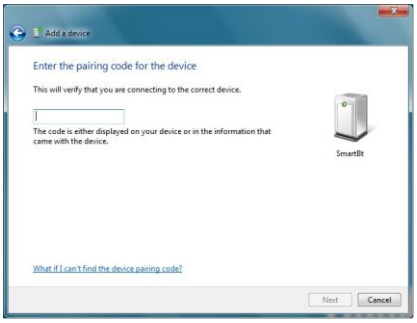
ENTER /$%ENTR



BT Pairing ZPAR

4-3. When Bluetooth device is detected, Bluetooth icon will appear on the taskbar with a pop-up message saying "a Bluetooth device is trying to connect". You have to timely click on the message to accordingly have **Add a device** dialogue box prompted before proceeding with the configuration.

4-4. In **Add a device** dialogue box, correctly enter the pairing code in Passcode field. Then, hit **Next** button to check the result.


Add a device
Enter the pairing code for the device
This will verify that you are connecting to the correct device.
The code is either displayed on your device or in the information that came with the device.
SmartBt
What if I can't find the device pairing code?
Next
Cancel

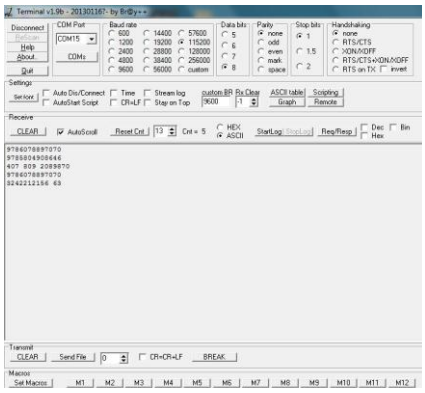
Enter

End

4-5. The appropriate message will pop up to indicate a success when the valid passcode is properly entered. If the passcode verification fails due to the timeout, please repeat the steps from **Step 4-2 to 4-4**.

Add a device
This device has been successfully added to this computer
Windows is now checking for drivers and will install them if necessary. You may need to wait for this to finish before your device is ready to use.
To verify if this device finished installing properly, look for it in Devices and Printers.
Warning
To help protect your computer from someone accessing it without your permission, only make your computer discoverable when you want a Bluetooth device to find your computer. Disable discovery when you no longer need it.
SmartBt
Close

4-6. Once Bluetooth connection is established successfully, swich back to the terminal application to start receiving barcode data.



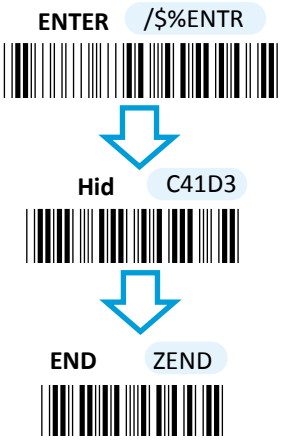
5-2-3. HID Connection Mode

Step 1

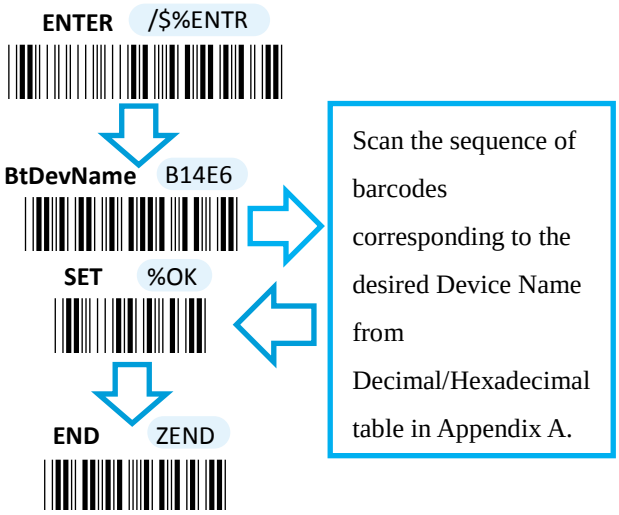
Configure your scanner either using the utility program or scanning programming barcodes. The convenience of **using utility program** will save you trouble scanning the sequence of barcode which demands great caution and high accuracy to work out the configuration. However, you may alternatively choose to **scan programming barcodes** to set up your scanner if you desire a time-saving configuration rather than a research into sophistication of utility program before using it. Considering all pros and cons mentioned above, please choose the one which works best for you.

Scanning Programming Barcodes

1-1. Configure **Output Interface** of the scanner to be **HID** by scanning the sequence of barcodes as the below illustration shows.



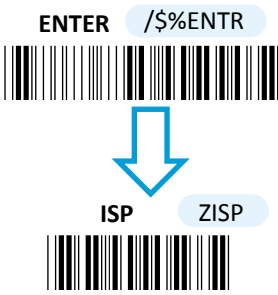
1-2. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.



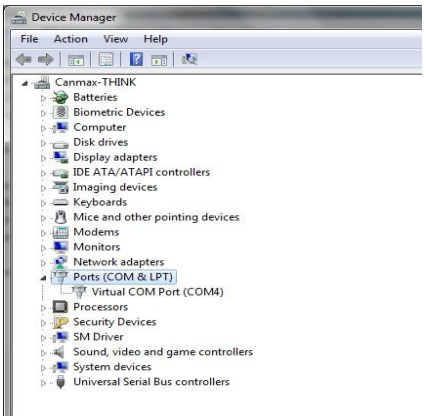
Using Utility Program

1-1. Please have your scanner connected to Host PC using USB cable.

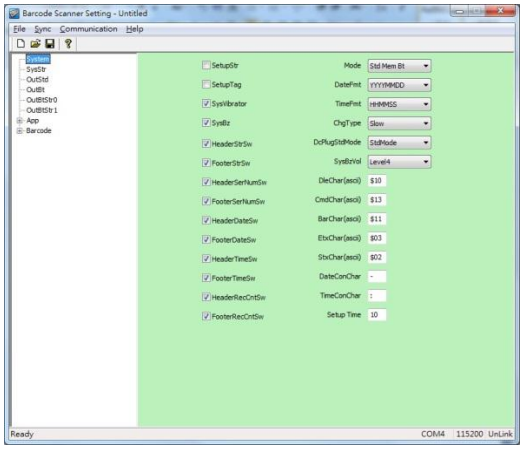
1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



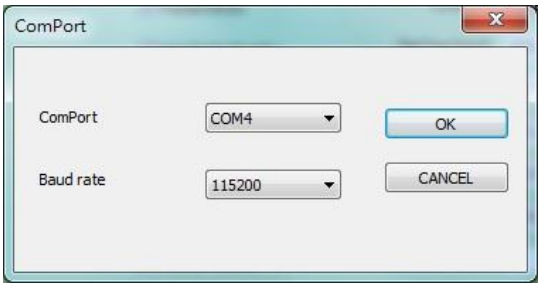
1-3. Go to **Control Panel**> **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.



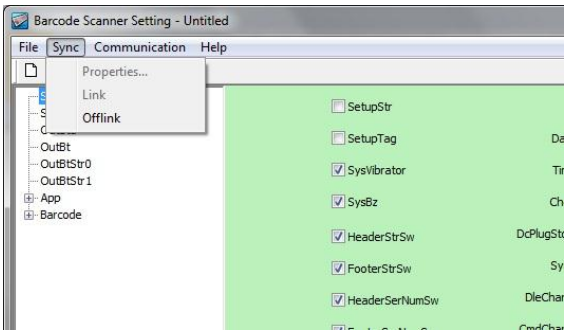
1-4. Invoke the utility program located in Product CD.



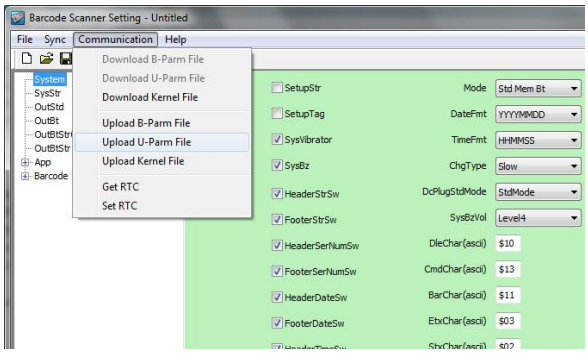
1-5. Select **Sync**> **Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



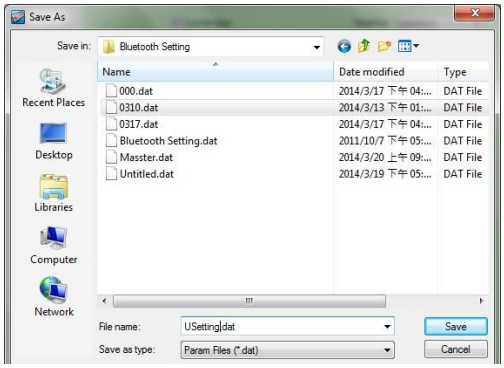
1-6. Select **Sync**> **Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



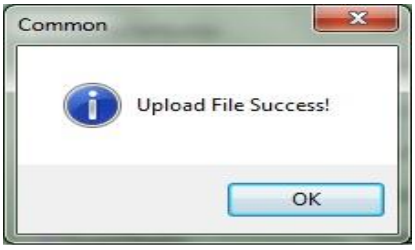
1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.



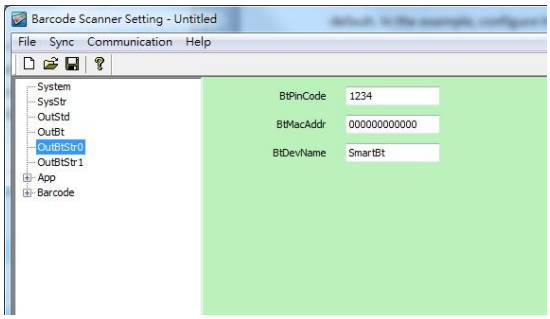
1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



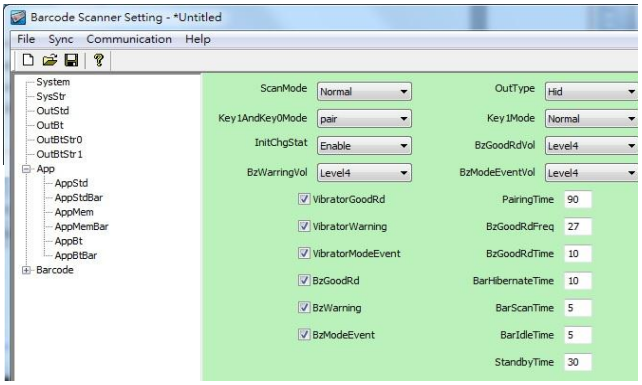
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



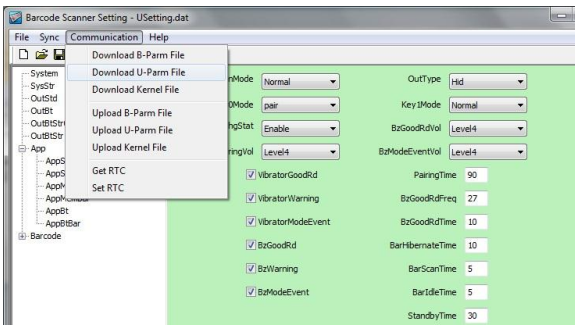
1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



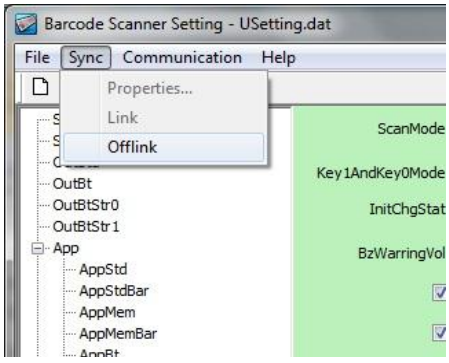
1-11. In the tree view, select **App**>**AppBt.** In the right panel, Select **HID** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.



1-12. Select **Communication**>**Download U-Parm file** to apply the customized settings to the scanner.



1-13. Select **Sync**> **Offlink** to complete the configuration.



Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.

ENTER /$%ENTR → To BT Mode ZTOB

2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger til blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.

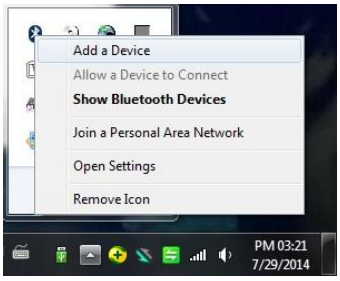
ENTER /$%ENTR → BT Pairing ZPAR

IMPORTANT: Please properly perform **Step 2-1** and **2-2** to ensure the dongle is able to detect the scanner at any time. While following the below steps to proceed with the configuration, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down either Scan Button or Small Trigger once to wake up the scanner.

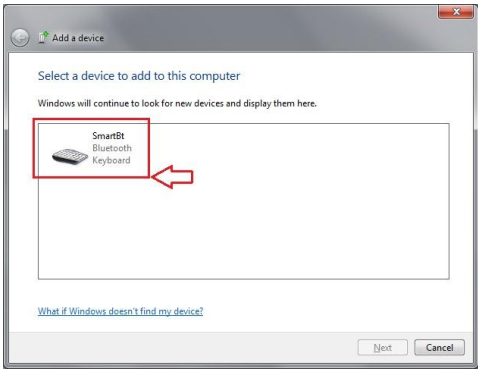
Establish a Bluetooth Connection

5

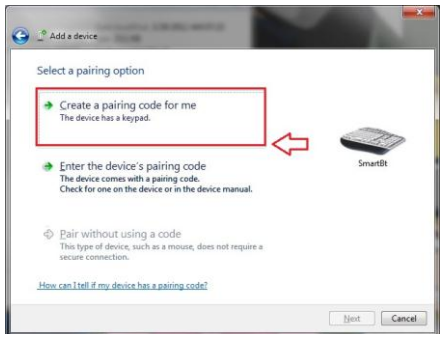
2-3. When Bluetooth device is detected, R-click on bluetooth icon on the task bar, and select **Add a Device** in the pop-up submenu.



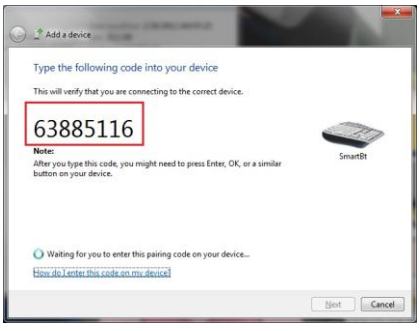
2-4. In **Add a Device** dialogue box, the list box will display all the available Bluetooth devices after a search. Select the device with the name which you specify for the scanner. In this example, click on **SmartBt** item. Then, hit Next button.


Add a device
Select a device to add to this computer
Windows will continue to look for new devices and display them here.
SmartBt
Bluetooth Keyboard
What if Windows doesn't find my device?
Next
Cancel

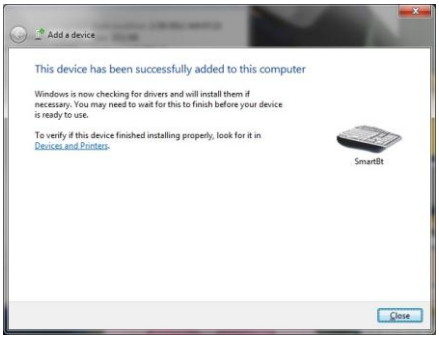
2-5. If the similar dialogue box appears as the below figure suggests (depending upon Bluetooth settings in your computer, the mentioned dialogue box may not show up), select **Create a pairing code for me** and then hit **Next** button. If not, skip to next step.


Add a device
Select a pairing option
Create a pairing code for me
The device has a keypad.
Enter the device's pairing code
The device comes with a pairing code.
Check for one on the device or in the device manual.
Pair without using a code
This type of device, such as a mouse, does not require a secure connection.
How can I tell if my device has a pairing code?
SmartBt
Next
Cancel

2-6. Refer to Decimal/Hexadecimal table in Appendix A to accurately scan the sequence of barcodes which matches to the generated code shown in the dialogue box for pin code verification. In this example, please scan **6,3,8,8,5,1,1,** and **6**.

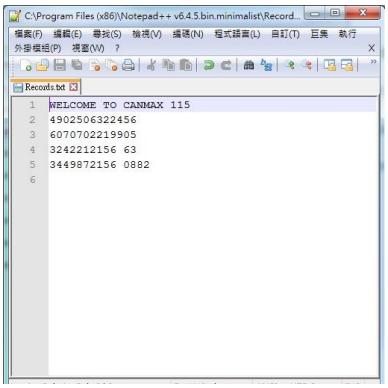

Add a device
Type the following code into your device
This will verify that you are connecting to the correct device.
63885116
Note:
After you type this code, you might need to press Enter, OK, or a similar button on your device.
SmartBt
Waiting for you to enter this pairing code on your device...
How do I enter this code on my device?
Next
Cancel

2-7. A message will appear to indicate the dongle and the scanner have been paired successfully. Press down **Close** button to close **Add a device** dialogue box.


Add a device
This device has been successfully added to this computer
Windows is now checking for drivers and will install them if necessary. You may need to wait for this to finish before your device is ready to use.
To verify if this device finished installing properly, look for it in Devices and Printers.
SmartBt
Close

Step 3

Launch the existing text editing application to receive barcode data.



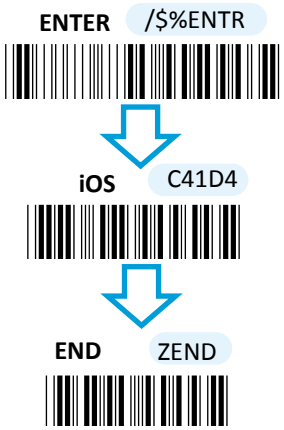
5-2-4. iOS Connection Mode

Step 1

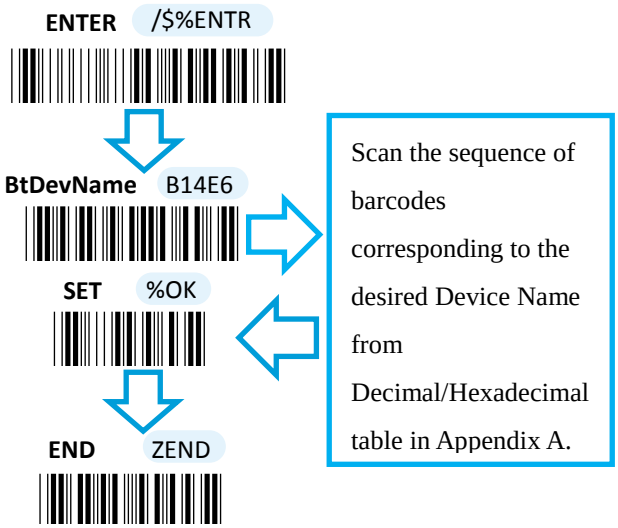
Configure your scanner either using the utility program or scanning programming barcodes. The primary advantage of **using the utility program** is to prevent the invalid configuration which frequently happens due to the incorrect and reckless scanning sequence. However, it requires extra pre-configuration procedures before the utility program can be executed properly. On the other hand, the use of **barcode programming sequence** will lead to a rapid and efficient configuration for your scanner instead of taking time to dig into the seemingly confusing application. Considering all pros and cons mentioned above, choose the one which fits for your situation.

Scanning Programming Barcodes

1-1. Configure **Output Interface** of the scanner to be **iOS** by scanning the sequence of barcodes as the below illustration shows.



1-2. Configure **Device Name** by scanning the sequence of barcodes as the below figure show. By default, Device name is set to "SmartBt."


ENTER /$%ENTR
BtDevName B14E6
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired Device Name from Decimal/Hexadecimal table in Appendix A.

Using Utility Program

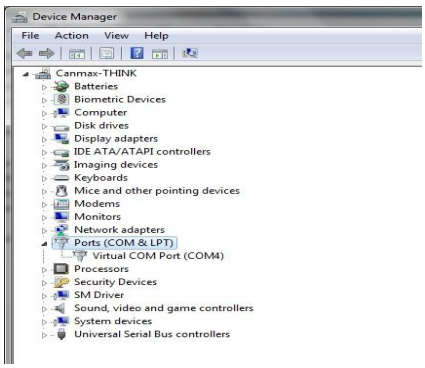
1-1. Please have your scanner connected to Host PC using USB cable.

1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.

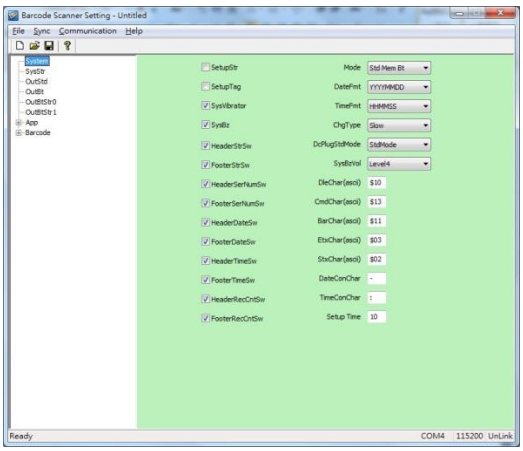
ENTER /$%ENTR

ISP ZISP

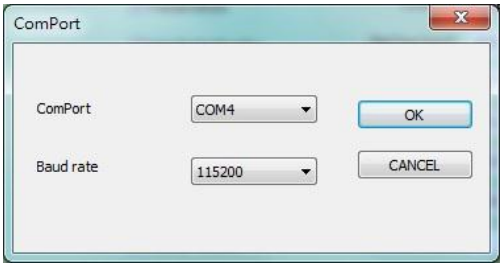
1-3. Go to **Control Panel**> **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



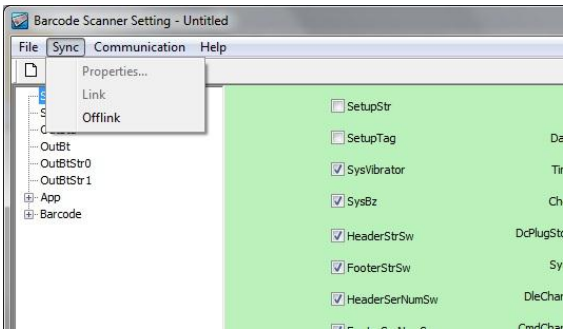
1-4. Invoke the utility program located in Product CD.



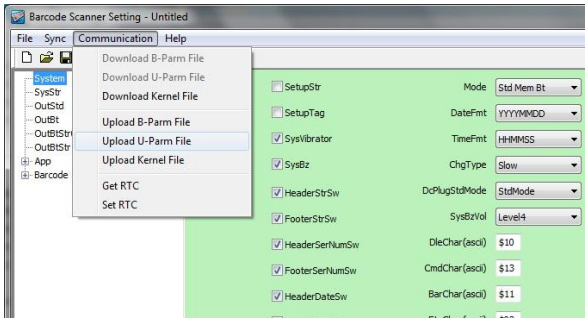
1-5. Select **Sync**> **Property**. In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



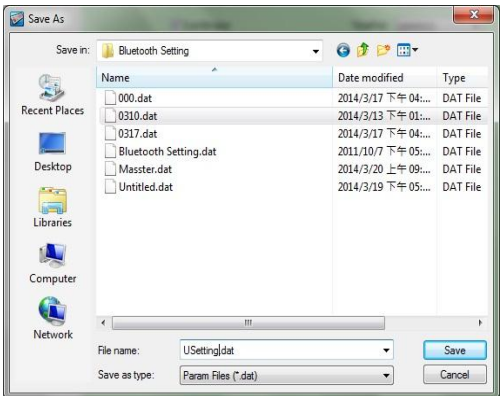
1-6. Select **Sync**>**Link** to link the scanner with the utility program. Once the link is successfully established, **Link/Property** options in Sync menu will be greyed out and the status bar will show associated information.



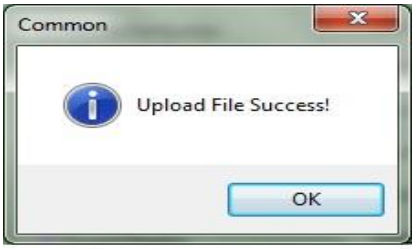
1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.



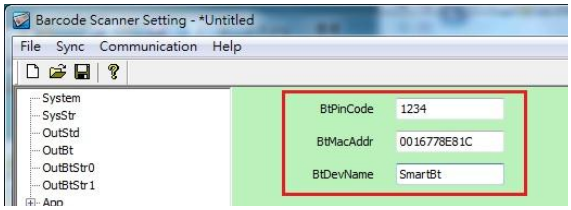
1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



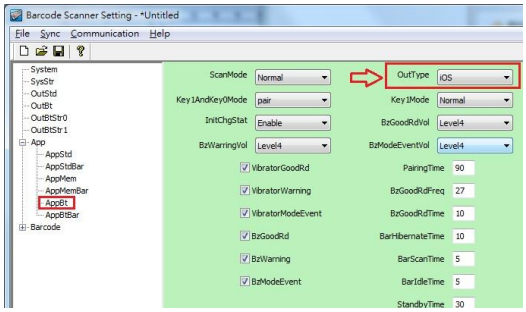
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



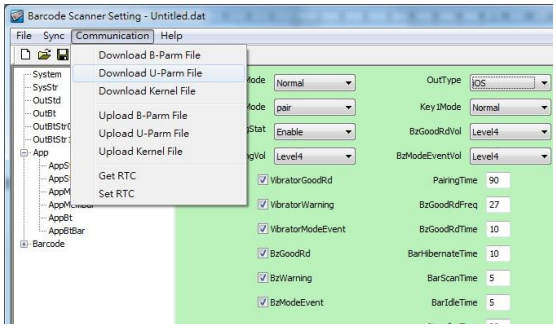
1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



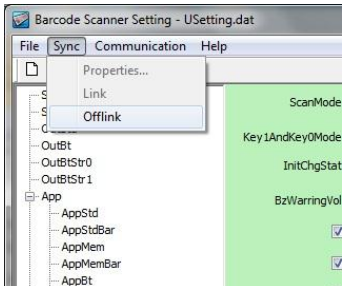
1-11. In the tree view, select **App**>**AppBt.** In the right panel, select **iOS** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



1-12. Select **Communication**>**Download U-Parm file** to apply the customized settings to the scanner..



1-13. Select **Sync**> **Offlink** to complete the configuration.



Establish a Bluetooth Connection

Step 2

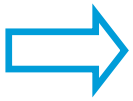
Initiate the process to pair the scanner with third-party Bluetooth dongle.

2-1. Please switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.

ENTER /$%ENTR



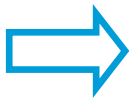
To BT Mode ZTOB

2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger til blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.

ENTER /$%ENTR



BT Pairing ZPAR

IMPORTANT: In order to pair the scanner with iPad, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down Scan Button or Small Trigger to wake up the scanner; or, repeat **Step 2-2** when the timeout period expires.

Establish a Bluetooth Connection

5

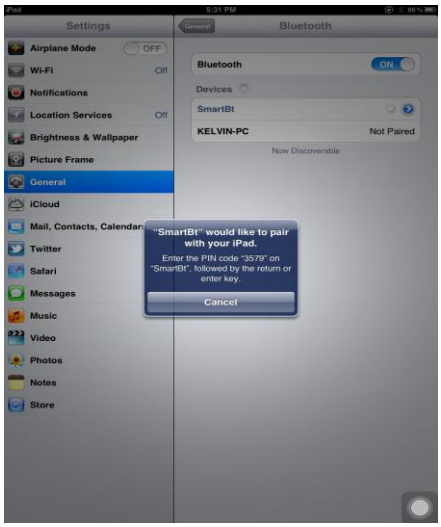
Step 3

Configure your Apple products. In this example, we will demonstrate the case with iPad.

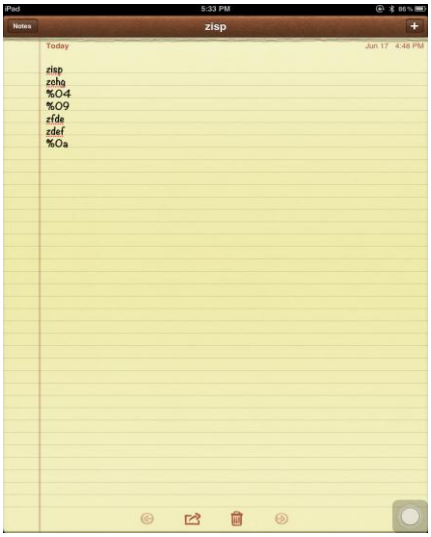
3-1. Activate your iPad. Tap **Setting**, go to **General**> **Bluetooth**, and then turn on **Bluetooth** settings.

3-2. From the list of available Bluetooth devices in range, Click on the device which you intend to pair iPad with.

3-3. According to pop-up message, correctly scan the passcode for verification. In this example, please read the sequence of decimal barcodes, 3-5-7-9. Repeat this step till it succeeds.



3-4. Once iPad successfully pairs with the scanner, press Home button to return to Home page. Then, tap **Notes** to receive barcode data.



5-2-5. Bluetooth Dongle A303 Connection Mode

Bluetooth Dongle A303 is a specialized Bluetooth peripheral device adapted for use of ES321 via HID or SPP interface in attempt to leverage Bluetooth technology. An optional purchase of Bluetooth dongle A303 could prevent you from going through the complicated configuration since it is well programmed beforehand with all the necessary Bluetooth settings before the delivery. Accordingly, performing Bluetooth operations out of ES321 for the very first time simply demands a press of button to recover the Bluetooth connection unless the scanner is re-programmed to pair with third-party dongle or other Bluetooth devices previously. In case that you possibly adopt a different approach to establish a Bluetooth connection for whatever reasons, the step-by-step instruction is still provided so that you are able to make ES321 work with Bluetooth dongle A303

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Work with Dongle A303 for the First Time Use

Step 1

Secure the Bluetooth dongle A303 into Host PC.

Step 2

Scan the sequence of barcodes listed below to switch the scanner to Bluetooth operation mode.

ENTER /$%ENTR

To BT Mode ZTOB

Step 3

Press down either Scan Button or Small Trigger to recover Bluetooth connection. A solid blue LED indicates a successful attempt.

Establish a Bluetooth Connection

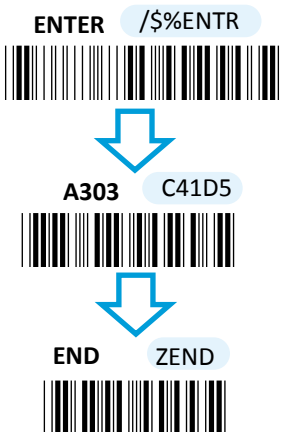
How to Re-Configure your Scanner to Work with Dongle A303

Step 1

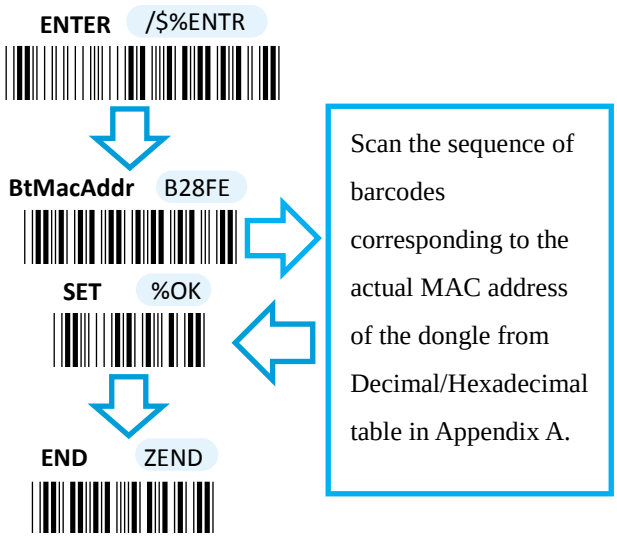
Configure your scanner either using the utility program or scanning programming barcodes. The approach of **utility program** will help you accurately program your device with no need to go through the sequence of barcode scans which occasionally produces erroneous results due to the lack of cares. As another alternative, **scanning programming barcodes** would work better if you rather adopt a more time-saving approach than allocate time or other resources to familiarize with the utility program.

Scanning Programming Barcodes

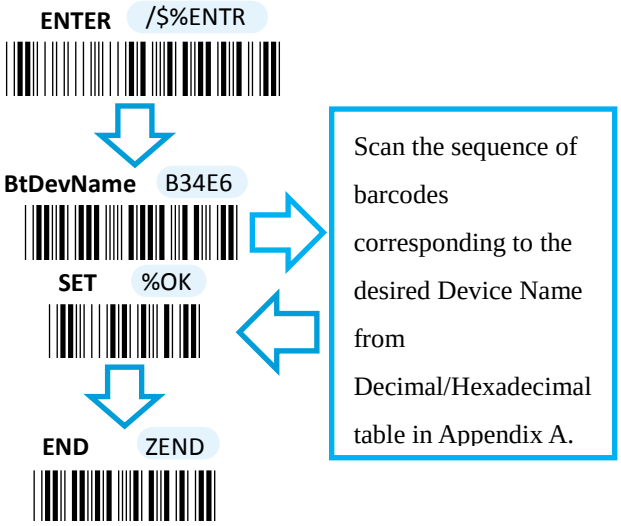
1-1. Configure **Output Interface** of the scanner to be **A303** by scanning the sequence of barcodes as the illustration on the right side shows.



1-2. Retrieve Mac Address info on the side of Bluetooth dongle A303, and then configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.



1-3. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.

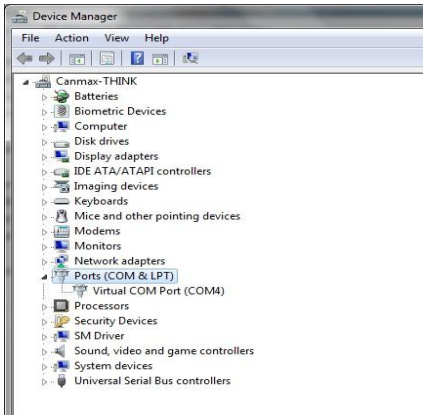


Using Utility Program

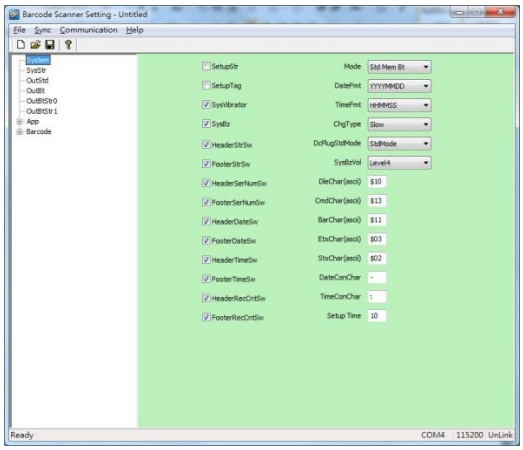
1-1. Please have your scanner connected to Host PC using USB cable.

1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.

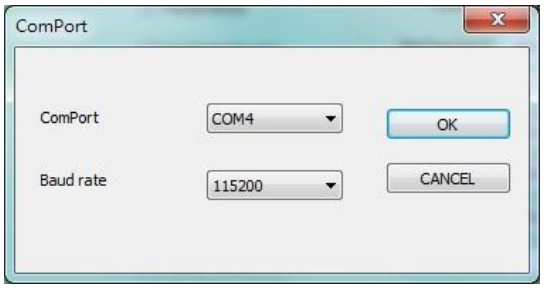
1-3. Go to **Control Panel**> **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



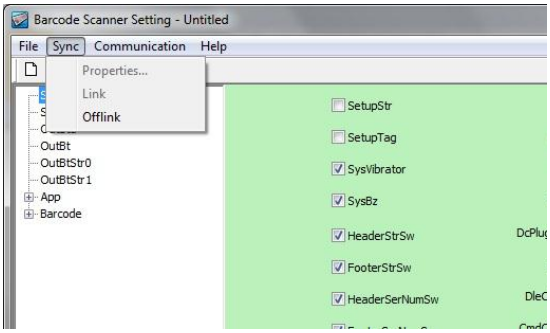
1-4. Invoke the utility program located in Product CD.



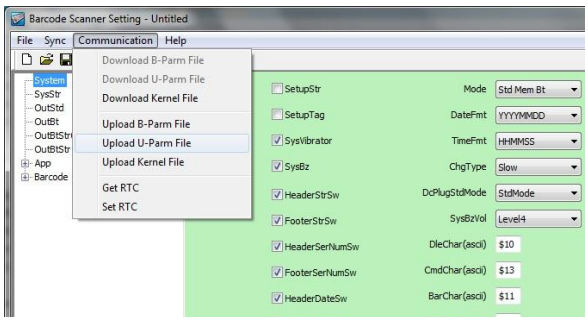
1-5. Select **Sync**> **Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



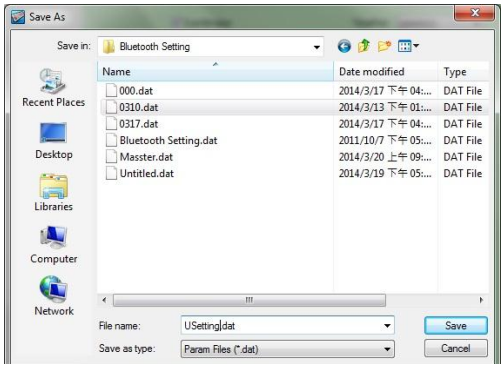
1-6. Select **Sync**> **Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



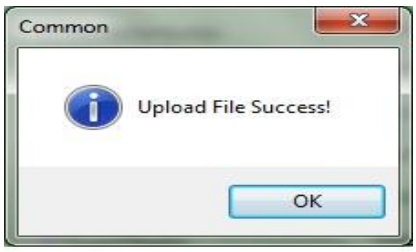
1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.



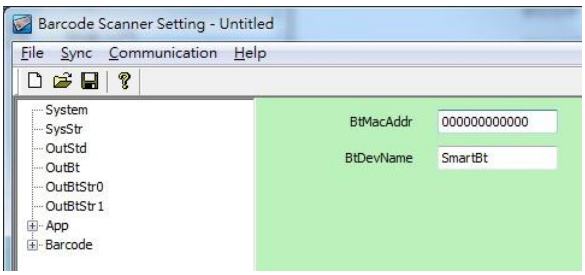
1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



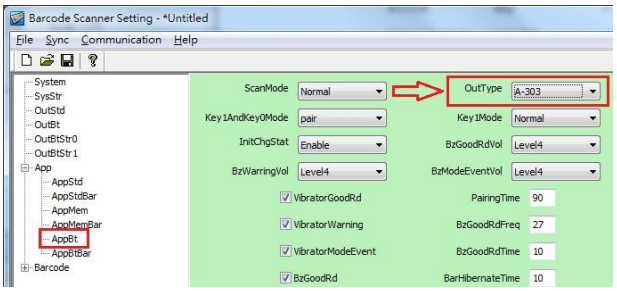
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



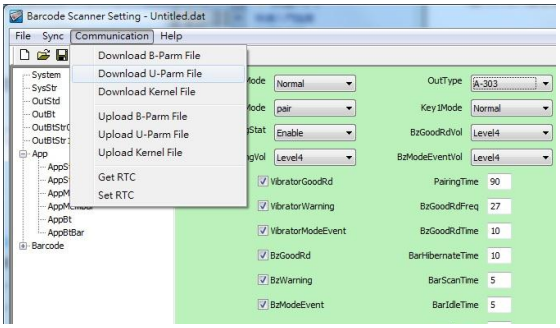
1-10. Click on **OutBtStr1** item of the tree view in the left panel. Afterwards, Configure **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information which is clearly marked on the side of Bluetooth dongle A303. In this example, the MAC address is **001C97FR16EA**.



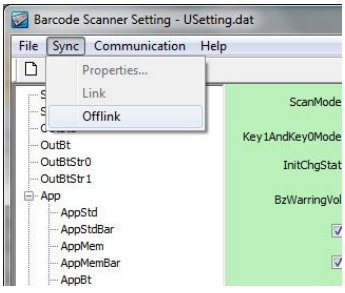
1-11. In the tree view, select **App**>**AppBt.** In the right panel, Select **A303** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.



1-12. Select **Communication**>**Download U-Parm file** to apply the customized settings to the scanner..



1-13. Select **Sync**> **Offlink** to complete the configuration.



Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

Using Button Triggers

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

Scanning Programming Barcodes

- Scan the below barcode.

2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

Using Button Triggers

- After holding small trigger til blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

Scanning Programming Barcodes

- Scan the below barcode.

Step 3

Properly scan the sequence of barcodes to determine the output interface via which the scanner interacts with other devices. To configure output interface, there are two interface options, HID interface and Virtual COM interface, for you to select from.

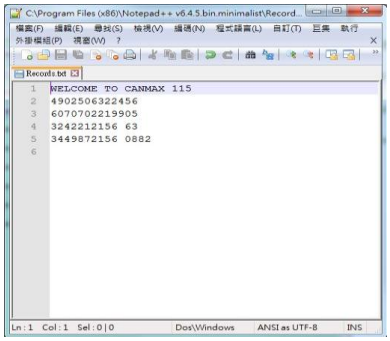
HID Interface

3-1. Scan the below barcodes to activate HID interface.

ENTER /$%PROG

Keyboard /$%ZKBD

3-2. Launch the existing text editing software to receive barcode data.



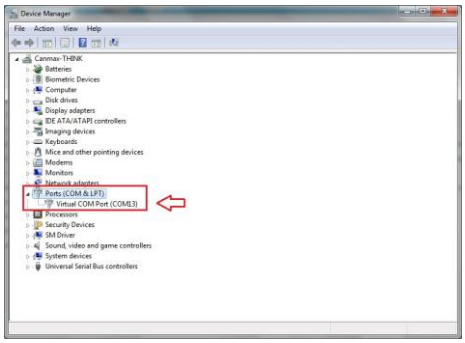
Virtual COM Interface

3-1. Scan the below barcodes to activate Virtual COM interface.

ENTER /$%PROG

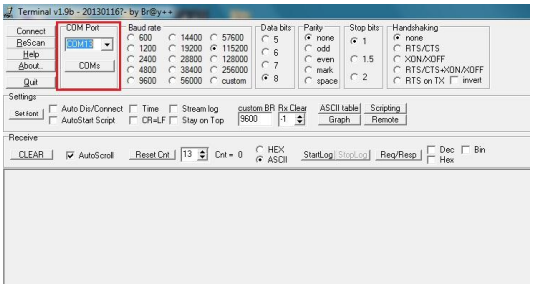
RS232 Default /$%Z232

3-2. Go to **Control Panel**> **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM13 is used as the virtual COM port.

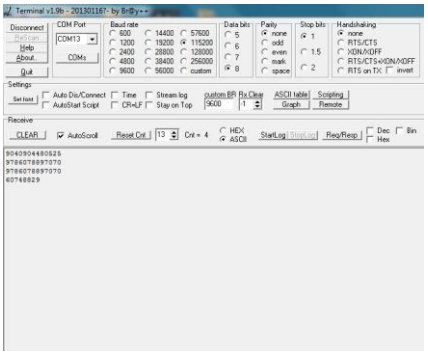


3-3. Run the terminal software. In the example, we will demonstrate the case with a free terminal emulation application, Terminal.

3-4. Correctly configure **COM Port** with the value matching the generated virtual COM port, and then press down **Connect** button to ensure the termial application is connected.



3-5. Now you are able to receive barcode data via terminal software.



5-2-6. Bluetooth Dongle A302 Connection Mode

Bluetooth Dongle A302 is a specialized Bluetooth peripheral device adapted for use of ES321 via HID interface in attempt to leverage Bluetooth technology. An optional purchase of Bluetooth dongle A302 could prevent you from going through the complicated configuration since it is well programmed beforehand with all the necessary Bluetooth settings before the delivery. Accordingly, performing Bluetooth operations out of ES321 for the very first time simply demands a press of button to recover the Bluetooth connection which is earlier configured unless the scanner is re-programmed to pair with third-party dongle or other Bluetooth devices. In case that you possibly adopt a different approach to establish a Bluetooth connection for whatever reasons, the step-by-step instruction is still provided so that you are able to make ES321 work with Bluetooth dongle A303 again.

Work with Dongle A302 for the First Time Use

Step 1

Secure the Bluetooth dongle A303 into Host PC.

Step 2

Scan the sequence of barcodes listed below to switch the scanner to Bluetooth operation mode.

ENTER /$%ENTR

To BT Mode ZTOB

Step 3

Press down either Scan Button or Small Trigger to recover Bluetooth connection. A solid blue LED indicates a successful attempt.

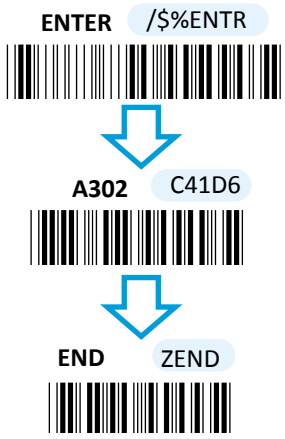
How to Re-Configure your Scanner to Work with Dongle A302

Step 1

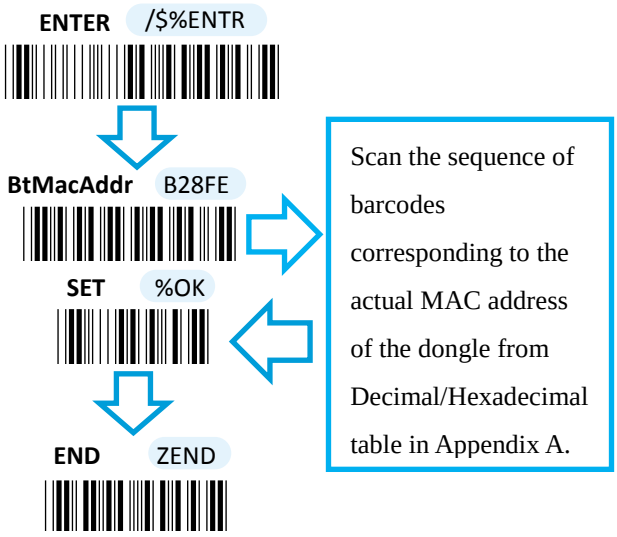
Configure your scanner either using the utility program or scanning programming barcodes. Select **utility program** to set up scanner when you expect to reduce the mistakes caused by incautious manual operation on barcode sequences. As a substitute, **scanning programming barcodes** alternatively provides a more efficient and straightforward method for programming your device, compared to the complicated approach of using utility program.

Scanning Programming Barcodes

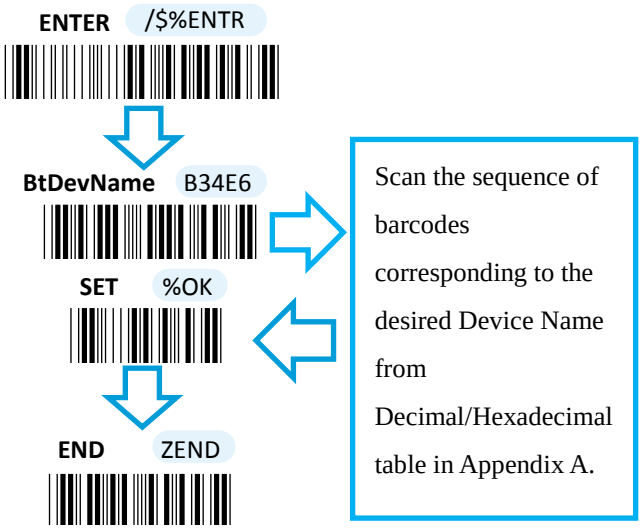
1-1. Configure **OutputInterface** of the scanner to be **A302** by scanning the sequence of barcodes as the illustration on the right side shows.



1-2. Retrieve Mac Address info on the side of Bluetooth dongle A302, and then configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtMacAddr B28FE
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the actual MAC address of the dongle from Decimal/Hexadecimal table in Appendix A.

1-3. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.


ENTER /$%ENTR
BtDevName B34E6
SET %OK
END ZEND
Scan the sequence of barcodes corresponding to the desired Device Name from Decimal/Hexadecimal table in Appendix A.

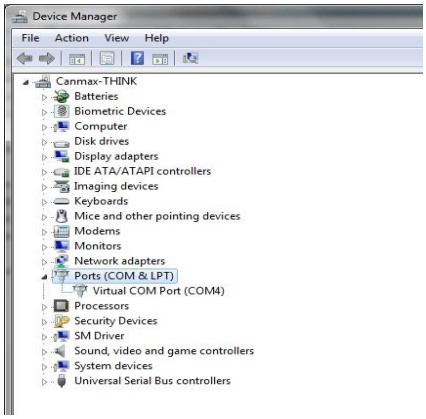
Establish a Bluetooth Connection

Using Utility Program

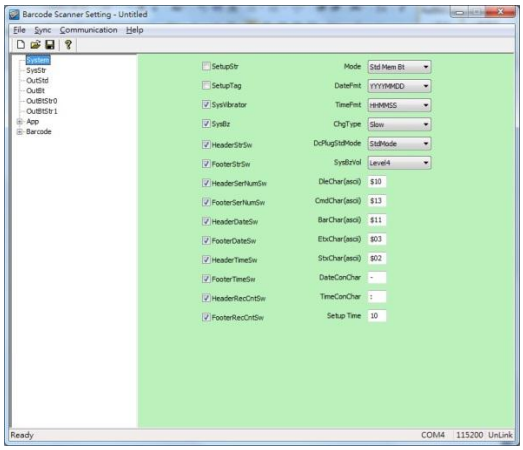
1-1. Please have your scanner connected to Host PC using USB cable.

1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.

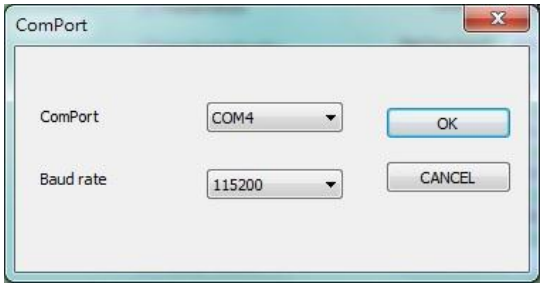
1-3. Go to **Control Panel**> **Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



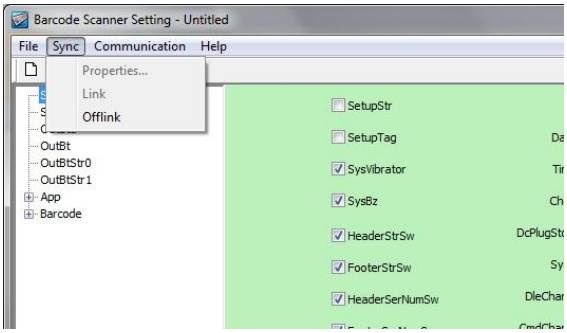
1-4. Invoke the utility program located in Product CD.



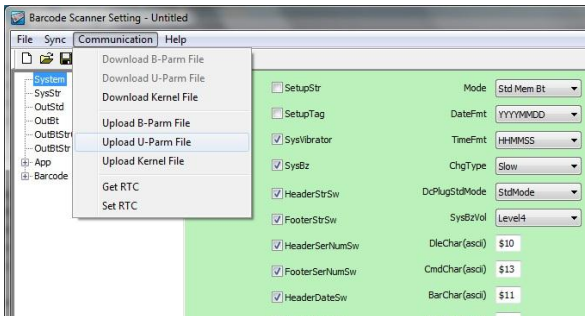
1-5. Select **Sync**> **Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



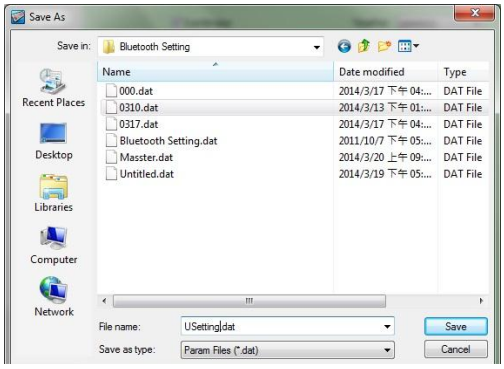
1-6. Select **Sync**> **Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



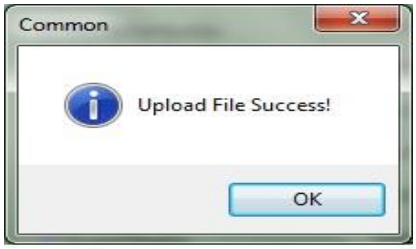
1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication**> **Upload U-Parm File**.



1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.

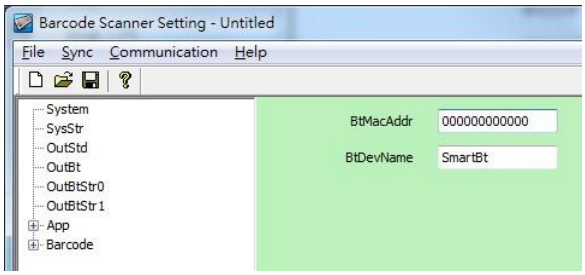


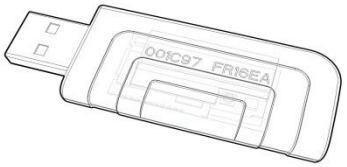
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



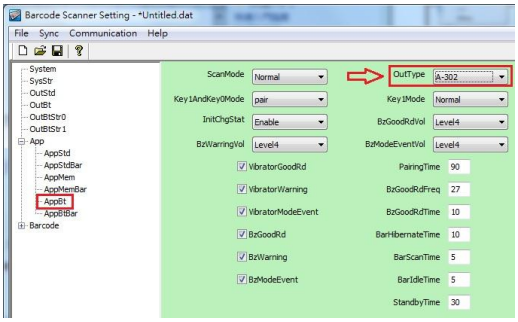
Establish a Bluetooth Connection

1-10. Click on **OutBtStr1** item of the tree view in the left panel. Afterwards, Configure **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information which is clearly marked on the side of Bluetooth dongle A303. In this example, the MAC address is **001C97FR16EA**.

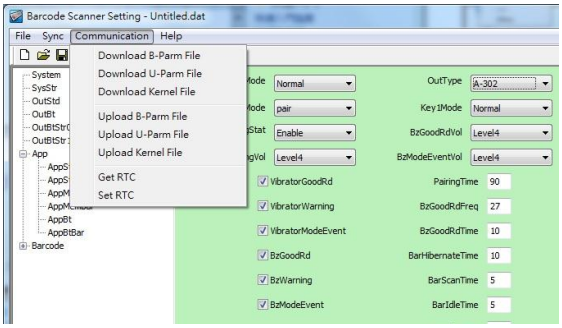




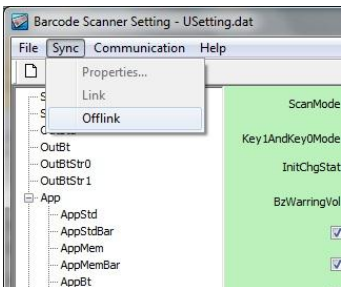
1-11. In the tree view, select **App**>**AppBt.** In the right panel, Select **A302** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.



1-12. Select **Communication**>**Download U-Parm file** to apply the customized settings to the scanner.



1-13. Select **Sync**> **Offlink** to complete the configuration.



Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

Using Button Triggers

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

Scanning Programming Barcodes

- Scan the below barcode.

2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

Using Button Triggers

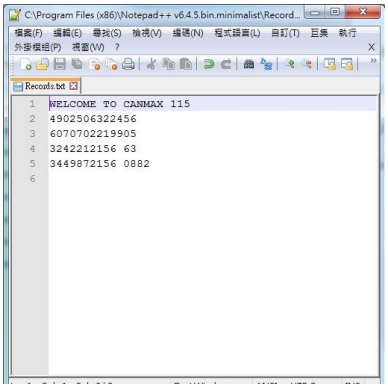
- After holding small trigger til blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

Scanning Programming Barcodes

- Scan the below barcode.

Step 3

Launch the existing text editing application to receive barcode data.



6. General Configuration

This chapter will provide setup barcodes regarding the general settings, and elaborate how these configurations are going to take effect in terms of the scanner operation.

6-1. Host Interface

6-1-1. Restore the Setting

Scan the below barcode to restore the device back to the default settings, but to leave interface-related configurations unchanged.

Default ZADE

6-1-2. Restore the Symbology Setting

Scan the below barcode to restore the symbologies to the default settings.

Barcode Default ZDEF

6-1-3. Retrieve Firmware Information

Scan the below barcode to retrieve firmware information, including engine version, firmware version, and Bluetooth module version.

Version ZVER

6-1-4. Abort the Configuration

Scan the below barcode to terminate the current operation and exit the configuration mode.

Abort ZEXT

6-1-5. Update Firmware

This setup barcode allows you to attemp a firmware update via the utility program. After securing the interface into the scanner and the PC USB port, scan the below barcode to create a virtual COM port which avails the utility of the access of the device.

ISP ZISP

6-1-6. Enable/Disable Automatic Battery Charger

By default, the device will automatically initiate the charging process to ensure a sufficient battery level after connected with the interface cable. Scan the barcode to enable or disable automatic battery charger. If the automatic battery charger is disabled, scan the barcode to turn it on; Conversely, scan the barcode to turn off the automatic charger when the function is enabled.

Charge On/Off ZCHG

6-1-7. Bluetooth Pairing

Scan the barcode to initiate the Bluetooth pairing process.

BtPairing ZPAR

6-2. System Control

6-2-1. Available Operation Modes

Taking into account the diversity of the business activities, three operation modes are provided to improve efficiency at work. The list of setup barcodes below shows varied selections of mode combinations, including 2in1 and 3in1 functions, for you to choose from. Scan the appropriate barcode to determine availability of operation modes.

Cable A40C0

Memory A40C1

Cable+Mem A40C2

Bluetooth A40C3

Cable+BT A40C4

Mem+BT A40C5

Cable+Mem+BT A40C6

6-2-2. Set Date Format

Scan the appropriate barcode to specify the date format.

YYYYMMDD A42C0

MMDDYYYY A42C1

DDMMYYYY A42C2

YYMMDD A42C3

MMDDYY A42C4

DDMMYY A42C5

6-2-3. Set Time Format

Scan the appropriate barcode to specify the time format.

HHMMSS A42A0

HHMM A42A1

MMSS A42A2

6-2-4. Set Charge Rate

Scan the appropriate barcode to specify the charge rate.

Slow A4300

Quick A4301

6-2-5. Set the Workflow of Operation Modes Switch

This parameter specifies how the device switches among different operation modes. With **StdMode** setting, the operation mode will compulsorily switch to Cable mode when the device is connected with a cable. At the moment, the scanner is not able to switch to other modes unless the cable is unplugged from the scanner. Without the cable plugged in, the device will switch back to the previous operation mode, and Cable mode becomes unavailable. Conversely, if you wish the operation mode would remain the same or demand full availability of three operation modes, no matter whether the cable is plugged in or not, then scan **Disable** label to achieve the attempt.

Disable A4320

StdMode A4321

6-2-6. Enable/Disable Buzzer

The warning buzzer emits a sound when a warning occurrs. Scan the appropriate barcode to disable or enable the buzzer.

Disable A4540

Enable A4541

6-2-7. Set the Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of the warning buzzer. The higher level indicates the louder sound.

Level1 A4580

Level2 A4581

Level3 A4582

Level4 A4583

6-2-8. Enable/Disable Vibrator

Vibrator functions as the warning buzzer yet sends a warning signal by vibration. Scan the appropriate barcode to disable or enable the warning vibrator.

Disable A4550

Enable A4551

6-2-9. Enable/Disable Vibrator for Confgiruration Mode

This special vibrator will send a vibration signal as a warning indicator when configuration mode is initiated by a scan on **Enter** label. Scan the appropriate barcode to have the feature disabled or enabled.

Disable A4570

Enable A4571

6-2-10. Enable/Disable Header

Headers refer to additional information, including serial number, date, time and so on, which precedes the decoded message while saved barcodes are transmitted in Memory mode. Scan the appropriate barcode to determine whether or not to send out the header information as part of transmitted data.

Disable A4600

Enable A4601

6-2-11. Enable/Disable Serial Number Info in the Header

Scan the appropriate barcode to determine whether or not to send out serial number information as part of header information.

Disable A4610

Enable A4611

6-2-12. Enable/Disable Date and Time Info in the Header

Scan the appropriate barcode to determine whether or not to send out date information as part of header information.

Disable A4620

Enable A4621

6-2-13. Enable/Disable Record Count Info in the Header

Record count information refers to the total number of scanned barcodes. Read the appropriate barcode to determine whether or not to send out the record count as part of header information.

Disable A4630

Enable A4631

6-2-14. Enable/Disable Footer

Footers refer to additional information which is appended to the decoded message while saved barcodes are transmitted in Memory mode. Scan the appropriate barcode to determine whether or not to send out the footer information as part of transmitted data.

Disable A4700

Enable A4701

6-2-15. Enable/Disable Serial Number Info in the Footer

Scan the appropriate barcode to determine whether or not to send out serial number information as part of footer information.

Disable A4710

Enable A4711

6-2-16. Enable/Disable Date and Time Info in the Footer

Scan the appropriate barcode to determine whether or not to send out date information as part of footer information.

Disable A4720

Enable A4721

6-2-17. Enable/Disable Record Count Info in the Footer

Record count information refers to the total number of scanned barcodes. Read the appropriate barcode to determine whether or not to send out the record count as part of footer information.

Disable A4730

Enable A4731

6-2-18. Set Date & Time

Scan the below barcode to set up date and time on the scanner. While associating the parameter with the preferred value, please pay attention to the time and date format you specify separately in **Section 6-2-2** and **Section 6-2-3** and then arrange related scan

Enter

End

sequences in the correct format to work out the configuration.

Set Date & Time ZCLK

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Set Date & Time** barcode to set time and date on the device.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan compound hexadecimal value barcodes representing the desired date and time. For instance, to configure date to be "2014/09/09"and time to "14:13:26", scan **1,4,0,9,0,9,1,4,1,3,2** and then **6** to assign the specified hexadecimal value "140909141326".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-19. Set Light Brightness

This feature allows you to adjust brightness of the light emitted from the scanner. Please follow the below procedures to configure light brightness.

LampLv1 A4EE0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **LampLv1** barcode to configure date separator.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value ranged from 0 to 255. For instance, to set the level of brightness to be 25, scan **2** first and then **5** to assign the specified decimal value "25".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-20. Set Date Separator

Date separator refers to the specified character which is used to format date data by dividing into different elements of years, months, and days. A customized date format with date separator will greatly increase readability.

DateConChar A56E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **DateConChar** barcode to configure date separator.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ":" character to break down Date information, scan **3** first and then **A** to assign the specified hexadecimal value "3A".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

6-2-21. Set Time Separator

Time separator refers to the specified character which is used to format time data by dividing into different elements of hours, minutes, and seconds. A customized time format with time separator will greatly increase readability.

TimeConChar A57E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TimeConChar** barcode to configure time separator.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ":" character to break down Time information, scan **3** first and then **A** to assign the specified hexadecimal value "3A".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

6-2-22. Set Time-out Period for Configuration Mode

The timeout period mentioned here refers to the length of time the device is allowed to remain idle ever since **ENTER** barcode is scanned to initiate Configuration mode. Once the time-out session expires, the scanner will automatically exit Configuration mode. This parameter allows you to configure the timeout limit which works best for you.

SetupTime A5FE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **SetupTime** barcode to configure the length of the timeout session.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value "1".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-23. Set Time-out Period for Decoding Add-on Codes

This feature refers to the amount of time allocated to decode the extra add-on code for UPC-A, UPC-E, EAN-13 and EAN-8 symbologies. Within the specified time frame, the supplementary symbol will be decoded and then transmitted as part of the output data if identified in the scanned barcode. To ensure the parameter functions normally, you have to properly enable the add-on symbol in WPC barcdoes at the same time to have it recognizable during the decoding process.

BarWaitAddonCnt A58E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarWaitAddonCnt** barcode to configure the length of the timeout session.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value "1".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-24. Set Count of Barcode Verification

There are some occasions in which you will have to compromise on scanning speed in exchange for scanning accuracy. The parameter allows you to specify the number of times the barcode verification porcess will be executed before the decoded scanned data is transmitted. The barcode will be identified as a valid one when the same decoded result is always returned every time. As mentioned earlier, it likely takes longer to decode a barcode with higher accuracy. For your reference, to ensure the authentication is performed at the speicifed count of execution, it is necessary to enable **DblConFirmSw** parameter for each operation mode at the same time.

BarDblConfirmCnt A59E0

(Length: 1 digit / Range: 1-10)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarDblConfirmCnt** barcode to configure the length of the timeout session.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value "1".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-25. Set Scan Interval in Continueous Scan Mode

This feature allows you to specify the time interval between two consectuvie scans of the same barcode. However, to have the configurable parameter take effect, you are required to set Scan Mode to be **Continue**, which enables scan light to stay on for a specified period of time to continuously scan plenty of barcodes without interruption.

BarGoodRdTime A5AE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarGoodRdTime** barcode to configure the length of the timeout session.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 0.1 second, scan **1** first and then **0** to assign the specified decimal value "10".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-26. Set Header Information

Header information refers to additional messages preceding to data output while the scanned barcodes are sent out in Memory mode. This special parameter allows you to customize your own custom header to add clarity of transmitted data.

Header A70E6

(Length: 12 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Header** barcode to configure the length of the timeout session.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 12 characters in length. For instance, to place the employee name "Mark" in the header section, scan **4, D, 6, 1, 7, 2, 6** followed by **B** to assign the specified hexadecimal value “4D61726B”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-2-27. Set Footer Information

Footer information refers to additional messages which are appended to data output while the scanned barcodes are sent out in Memory mode. This special parameter allows you to customize your own custom footer to add clarity of transmitted data.

Footer A60E6

(Length: 12 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Footer** barcode to configure the length of the timeout session.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 12 characters in length. For instance, to place the employee name "Mark" in the footer section, scan **4, D, 6, 1, 7, 2, 6** followed by **B** to assign the specified hexadecimal value “4D61726B”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-3. Scanner Commands

To perform certain special tasks, you sometimes will use Command Prompt commands to communicate with the device instead of having your scanner read a sequence of setup barcodes listed in the manual. In the case like this, you possibly need to rely on escape characters, no matter predefined or customized, to notify the decoder of the additional interpretation on the text following prefixed escape characters. The below configurable parameters allow you to define your own escape characters while you work with a terminal program to send out command strings to the scanner.

6-3-1. Set <DLE> Escape Character

The parameter serves to avoid the reserved characters from being interpreted using their originally defined meanings. The special characters thus will be treated as the normal ones once preceded with DLE escape character. Associate the user-defined parameter with the value of the reserved character you intend to escape to complete the configuration.

DleChar A51E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **DleChar** barcode to configure <DLE> escape character.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <DLE> escape character "#", scan **2** first and then **3** to assign the specified hexadecimal value "23".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

6-3-2. Set <CMD> Escape Character

In most cases, this parameter is used to specify the position where the command options are retrieved to execute the modified operations for the specified command line, especially when you are working with a terminal program to send commands to the scanner. Once <CMD> escape character is well defined, please properly append the desired and valid command options to the escape character to achieve the attempt.

CmdTypeChar A52E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **CmdTypeChar** barcode to configure <CMD> escape character.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <CMD> escape character "~", scan **7** first and then **E** to assign the specified hexadecimal value "7E".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

6-3-3. Set <BAR> Escape Character

<BAR> escape character is used to specify the position where the barcode is. According to the configuration, the decoder will treat the characters following the parameter value as barcode data to further perform relevant process.

BarTypeChar A53E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BarTypeChar** barcode to configure <BAR> escape character.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <BAR> escape character "&", scan **2** first and then **6** to assign the specified hexadecimal value "26".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

6-3-4. Set <STX> Escape Character

In general, a valid command string is required to begin with a start delimiter which precedes the command code to denote the start of a command string. By associating this user-defined parameter with the desired control codes, you are able to create your own custom start digit.

StxChar A55E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StxChar** barcode to configure <STX> escape character.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <STX> escape character "%", scan **2** first and then **5** to assign the specified hexadecimal value "25".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

6-3-5. Set <ETX> Escape Character

In general, a valid command string is required to end with a stop delimiter which is appended to the command code to denote the end of a command string. By associating this user-defined parameter with the desired control codes, you are able to create your own custom end digit.

EtxChar A54E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **EtxChar** barcode to configure <ETX> escape character.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <ETX> escape character "^", scan **5** first and then **E** to assign the specified hexadecimal value "5E".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7. Setting up your Operation Modes

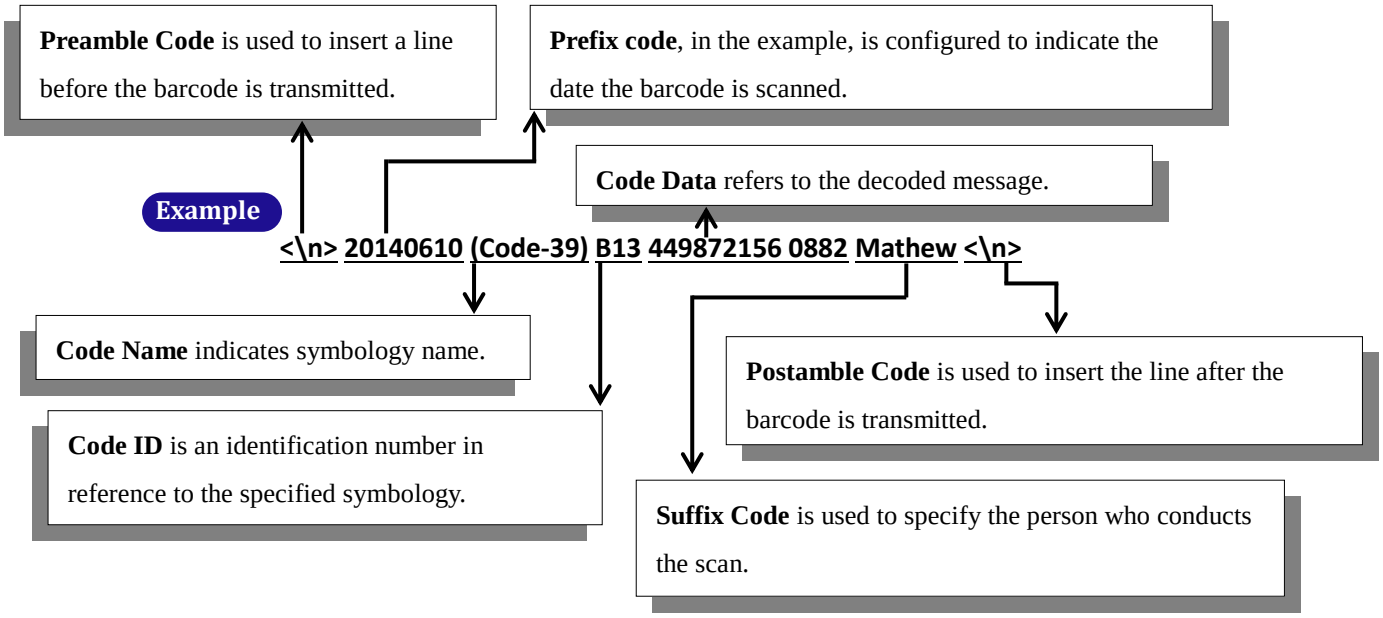
In view of individuality of each operation mode, this chapter presents the relevant parameters which you can configure depending on your usage habits in different modes, in the hope that you always get comfortable operating ES321.

Besides, the features used to edit output data are also included in this chapter. Before being exposed to the great details about their configurations, you are suggested to first get a glimpse of the fundamental constituents of a complete output string. Knowing its structure assuredly helps you to structure the scanned data in a highly readable form.

7-1. Output String Structure

On the whole, a complete output string is composed of a couple of data fields, starting with **Preamble code** followed in order by **Prefix Code, Code Name, Code Data,** and **Suffix Code**, ending with **Postamble Code**. Except for **Code Data** filed as an indispensable and non-configurable part of output data, the rest are optional transmit elements which you can define on your terms. The relevant configuration on the output formatting parameters will be elaborated in order throughout this chapter.

Take an output string, **<\n>20140610(Code-39)B13449872156 0882StaffName<\n>**, as an example. In general, it can be broken down into several data fields as the below illustration shows:


Preamble Code is used to insert a line before the barcode is transmitted.
Prefix code, in the example, is configured to indicate the date the barcode is scanned.
Code Data refers to the decoded message.
Example
<\n> 20140610 (Code-39) B13 449872156 0882 Mathew <\n>
Code Name indicates symbology name.
Code ID is an identification number in reference to the specified symbology.
Postamble Code is used to insert the line after the barcode is transmitted.
Suffix Code is used to specify the person who conducts the scan.

Output String Structure						
Preamble Code	Prefix Code	Code Name	Code ID	Code Data	Suffix Code	Postamble Code
<\n>	20140610	(Code-39)	B13	449872156 0882	Mathew	<\n>

7-2. Cable Mode

Please be advised the following parameters in this section simply work for the associated operations in Cable mode. Make sure that you appropriately conduct the operations using Cable mode.

7-2-1. Output Interface Options

In terms of output interface options, it is more about technical configuration regarding how you want barcode data to be transmitted between devices in Cable mode before scanned barcode is further processed. Properly configure your scanner according to the realistic situation will lead to satisfactory data transmission performance.

7-2-1-1. Set Data Transfer Rate for SPP

Data transfer rate, measured in bits per second, refers to speed of digital data travelled among devices. Scan the appropriate barcode to specify data transfer rate for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

7 Bits AA020

8 Bits AA021

7-2-1-2. Set Length of Stop Bit for SPP

Stop bit follows after the end of data in transit as to signal the end of transmitted data. Scan the appropriate barcode to specify the length of stop bit for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

1 Bit AA030

2 Bits AA031

7-2-1-3. Set Parity Check for SPP

Parity checking employs parity bits to detect whether an error occurs or not during data transmission. Out of six variants scan the appropriate barcode to specify the type of parity bits for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

None AA0D0

Even AA0D1

Odd AA0D2

Space AA0D3

Mark AA0D4

7-2-1-4. Set Communication Protocol for SPP

Scan the appropriate barcode to specify the communication protocol for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

None AA1C0

0x06/0x15 AA1C1

Ack/Nak AA1C2

7-2-1-5. Enable/Disable <STX> and <ETX> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <STX> and <ETX> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

None AA1A0

STX/ETX AA1A1

7-2-1-6. Enable/Disable <BAR> and <CMD> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <BAR> and <CMD> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

Disable AA160

Enable AA161

7-2-1-7. Enable/Disable Command Mode for SPP

Scan the appropriate barcode to enable or disable Command mode for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

Disable AA170

Enable AA171

7-2-1-8. Set Baud Rate for SPP

Baud Rate refers to the amount of data per second can be transmitted. Scan the appropriate barcode to specify the desired baud rate of data transmission for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

300Bps AA2C0

600Bps AA2C1

1200Bps AA2C2

2400Bps AA2C3

4800Bps AA2C4

9600Bps AA2C5

19200Bps AA2C6

38400Bps AA2C7

57600Bps AA2C8

115200Bps AA2C9

230400Bps AA2CA

460800Bps AA2CB

512000Bps AA2CC

7-2-1-9. Set Transfer Count for Time Delay for SPP

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay for SPP if the associated operations are performed using the RS-232 or USB COM interfaces.

StdSppTxCharGapCnt AADE0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxCharGapCnt** barcode to configure the transfer count for time delay for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate time delay after every five digits are transmitted, then scan **5** to assign the specified decimal value "5".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

7-2-1-10. Set Time Delay for a Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time-delay variable for a digit for SPP if the associated operations are performed using the RS-232 or USB COM interfaces.

StdSppTxCharGapTime AAEE0

(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxCharGapTime** barcode to configure delay time for a digit for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2, 0,** and then **0** to assign the specified decimal value "200".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-11. Set Time Delay for a Record for SPP

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time-delay variable for a record for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxGapTime AAFE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **StdSppTxGapTime** barcode to configure delay time for a record for SPP.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a record for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-1-12. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time-delay variable for a specified digit for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxExtTime AABE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxExtTime** barcode to configure delay time for a specified digit for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a specified digit for 1 second, scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-13. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxOtTime AACE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxOtTime** barcode to configure timeout parameter for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set the timeout period to 1 second, then scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-14. Set Retransmission Count for SPP

To avoid data transmission loss, messages sometimes have to be resent due to a failure to receive ACK signal. This parameter allows you to configure the number of attempting retransmission for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxAckCnt AA9E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxAckCnt** barcode to configure timeout parameter for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set retransmission count to 1, then scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-15. Set ACK Timeout for SPP

ACK timeout refers to the allotted time to elapse for the receipt of ACK signal before timeout is initiated. This parameter allows you to specify the amount of time allocated for ACK timeout for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxAckTime AAAE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdSppTxAckTime** barcode to configure ACK timeout for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set ACK timeout to be 1, then scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-16. Set Caps Lock setting for HID

This parameter provides the alternative to emulate Caps Lock which is a lock key to change the letter case of the typed alphabets. Read either **Caps Lock On** or **Caps Lock off** label to initiate the inversion of the letter case. However, in this case, the status of Caps Lock on your physical keyboard should be also taken into account. As to the mutual interaction between Caps lock key on the keyboard and the capital settings, please refer to the below chart to achieve the attempt. Alternatively, scan **Alt+Keyoad** label to determine the letter case of typed alphabets by keystroke combinations of Alt + ASCII code , regardless of the status of Caps Lock key. **Auto** label is to transmit the barcode data without inverting its case.

Example

ABCdef ABCdef

Cap Locks Status / Scanner Options	Caps Lock On	Caps Lock Off
Caps Lock On	ABCdef	abcDEF
Caps Lock Off	abcDEF	ABCdef
Alt+Keypad	ABCdef	ABCdef

Auto AB0A0

Caps Lock Off AB0A1

Caps Lock On AB0A2

Alt+Keypad AB0A3

7-2-1-17. Enable/Disable Num Lock for HID

Scan the appropriate barcode to enable or disable Num Lock if the associated operations are performed using USB HID interface. When **AlphaPad** is enabled, regardless of the status of Num Lock key on your keyboard, the numeric symbols contained in the barcode data will be genuinely interpreted. On the other hand, scan **Num Lock** label to substitute arrow keys and Del, PgUp, PgDown keys for corresponding numeric keys to have effects on the decoded message when Num Lock is turned off.

AlphaPad AB060

NumPad AB061

7-2-1-18. Enable/Disable Caps Lock Emulation

Scan the appropriate barcode to determine whether or not to use Shift keystroke to emulate Caps lock key if the associated operations are performed using USB HID interface.

Disable AB070

Enable AB071

7-2-1-19. Set IMEs for HID

IME is a program which allows users to input different sets of characters derived from different languages. Scan the appropriate barcode to specify active Input Method Editors, if the associated operations are performed using USB HID interface.

EN AB1C0

UK AB1C1

JP AB1C2

FR AB1C3

GR AB1C4

IT AB1C5

SP AB1C6

PO AB1C7

SK AB1C8

7-2-1-20. Set Transfer Count for Time Delay for HID

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using USB HID interface.

StdHidTxCharGapCnt ABDE0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdHidTxCharGapCnt** barcode to configure the transfer count for time delay for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate a timeout after 10 digits are transmitted, scan **1** first and then **0** to assign the specified decimal value "10".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-21. Set Time Delay for a Digit for HID

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit if the associated operations are performed using USB HID interface.

StdHidTxCharGapTime ABEE0

(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdHidTxCharGapTime** barcode to configure delay time for a digit for HID.

(3) Please refer to Decimal/Hexadecimal Table table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2, 0** and then **0** to assign the specified decimal value "200".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-22. Set Time Delay for a Record for HID

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using USB HID interface.

StdHidTxGapTime ABFE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdHidTxGap**Time barcode to configure delay time for a record for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-23. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

StdHidTxExtTime ABBE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdHidTxExtTime** barcode to configure delay time for a specified digit for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 1 second, then scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-1-24. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period if the associated operations are performed using USB HID interface.

StdHidTxOtTime ABCE0

(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StdHidTxOtTime** barcode to configure timeout parameter for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set the timeout period to be 3 seconds, then scan **3** to assign the specified decimal value "3".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-2. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-2-2-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcode. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correrspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff B8080

Momentary B8081

Continue B8082

Toogle B8083

7-2-2-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface.

USBHid B81D1

USBSpp B81D2

Spp B81D3

7-2-2-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from initiating battery charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid green LED light.

Disable B8290

Mem Tx B8292

7-2-2-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes and Small Trigger to initiate data transmission. In Cable mode, battery charge is an extra function which can be initiated by pressing Small Trigger and Scan Button in a specified sequence described below: while holding Small Trigger till the green LED light starts flashing rapidly, press down Scan Button at the same time and then release both buttons. Scan the appropriate label to enable or disable functionality of battery charge.

Disable B8280

ChgSw B8281

7-2-2-5. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.

Level1 B8480

Level2 B8481

Level3 B8482

Level4 B8483

7-2-2-6. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.

Level1 B8490

Level2 B8491

Level3 B8492

Level4 B8493

7-2-2-7. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Level1 B84A0

Level2 B84A1

Level3 B84A2

Level4 B84A3

7-2-2-8. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well connected to host PC using an interface cable and switched to Bluetooth mode.

Disable B8300

Enable B8301

7-2-2-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.

Disable B8600

Enable B8601

7-2-2-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.

Disable B8610

Enable B8611

7-2-2-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Vibrator.

Disable B8620

Enable B8621

7-2-2-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable B8500

Enable B8501

7-2-2-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable B8510

Enable B8511

7-2-2-14. Enable/Disable Normal Event Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Buzzer.

Disable B8520

Enable B8521

7-2-2-15. Set Good Read Buzzer Frequency

Please follow the below steps to specify Good Read Buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq B98E0

(Length: 1 digit / Range: 0-255/ Unit: 100 Hz)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1, 0** and then **0** to assign the specified decimal value "100".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-2-16. Set Good Read Buzzer Duration

Please follow the below steps to specify the length of time the device keeps emitting a sound when a barcode is decoded successfully.

BzGoodRdTime B99E0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdTime** barcode to configure Good Read Buzzer duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-2-17. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

ViberatorGoodRdTime B9AE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ViberatorGoodRdTime** barcode to configure Good Read Vibrator duration.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-2-18. Set Activation Duration

In general, after Scan Button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan Button is held.

BarScanTime B9DE0

(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarScanTime** barcode to configure activation duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 5 to 255. For instance, to set activation duration to be 7 seconds, then scan **7** to assign the specified decimal value "7".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-2-19. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime B9EE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarIdleTime** barcode to configure idle duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, the scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-2-20. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime B9FE0

(Length: 1 digit / Range: 30-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StandbyTime** barcode to configure idle duration.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 30 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value "30".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-3. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Cable mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style, and accordingly results in a subtle output layout which will benefit yourself from locating barcode data more efficiently.

7-2-3-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both the Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable BA000

Enable BA001

7-2-3-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable BA010

Enable BA011

7-2-3-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.

Disable BA020

Enable BA021

7-2-3-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.

Disable BA030

Enable BA031

7-2-3-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.

Disable BA040

Enable BA041

7-2-3-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.

Before BA050

After BA051

7-2-3-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If **Enabled**, length info will be prefixed to decoded barcode.

Disable BA060

Enable BA061

7-2-3-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.

Disable BA070

Enable BA071

7-2-3-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable BA100

Enable BA101

7-2-3-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable BA110

Enable BA111

7-2-3-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode**.**

Before BA120

After BA121

7-2-3-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.

Disable BA130

Enable BA131

7-2-3-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.

Disable BA140

Enable BA141

7-2-3-14. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default, when the feature is enabled, the device will verify the barcode one more time. To secify the particular number of times for executing barcode verfication, please refer to **Section 6-2-23** in **Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable BA210

Enable BA211

7-2-3-15. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is

exactly the same to your previous scans. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.

Disable BA200

Enable BA201

7-2-3-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None BA380

Inverse BA381

Lower BA382

Upper BA383

7-2-3-17. Set Delimiter Between Time/Date Stamps and Barcode Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-2-3-10** to enable the relevant delimiter parameter as well.

DelimiterChar BABE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **DelimiterChar** barcode to configure the delimiter.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-3-18. Set Delimiter Between Time and Date Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-2-3-12** and **Section 7-2-3-13** to enable time and date stamps as well.

DateTimeSpareChar BAAE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **DateTimeSpareChar** barcode to configure the delimiter.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-3-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use preamble code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble code.

PreambleChar BACE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PreambleChar** barcode to configure Preamble Code.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0,** and then **A** to assign the specified hexadecimal value "0D0A".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-3-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both the suffix code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.

PostambleChar BAEE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PostambleChar** barcode to configure Postamble Code.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0, D, 0,** and then **A** to assign the specified hexadecimal value "0D0A".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-2-3-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slight differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.

PrefixChar BB0E5

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **PrefixChar** barcode to configure Prefix Code.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be “ABCD”, scan **4, 1, 4, 2, 4, 3, 4,** and then **4** to assign the specified hexadecimal value "41424344".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-2-3-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.

SuffixChar BB8E5

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **SuffixChar** barcode to configure Suffix Code.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be “EFGH”, scan **4, 5, 4, 6, 4, 7, 4,** and then **8** to assign the specified hexadecimal value "45464748".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-3. Memory Mode

Please be advised the following parameters in this section simply works for the associated operations in Memory mode. Make sure that you appropriately conduct the operations using Memory mode.

7-3-1. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-3-1-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcdoe. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correrspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff BE080

Momentary BE081

Continue BE082

Toogle BE083

7-3-1-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface.

AppStd BE1D0

USBHid BE1D1

USB BE1D2

Spp BE1D3

Usb BE1D4

7-3-1-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from deleting single scanned data charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid orange LED light. By default, Small Trigger is set for maximum functionality without limit.

Disable BE290

Del BE291

Mem Tx BE292

Normal BE293

7-3-1-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes, and Small Trigger to initiate data transmission. In Memory mode, all the scanned barcode data will be deleted by pressing small trigger and Scan button in a specified sequence described below: while holding the smaller till the orange LED light starts flashing rapidly, press down Scan button at the same time and then release both buttons. Scan the appropriate label to enable or disable functionality of file deletion.

Disable BE280

DelAll BE281

7-3-1-5. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well connected to host PC using an interface cable and switched to Memory mode.

Disable BE300

Enable BE301

7-3-1-6. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.

Level1 BE480

Level2 BE481

Level3 BE482

Level4 BE483

7-3-1-7. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.

Level1 BE490

Level2 BE491

Level3 BE492

Level4 BE493

7-3-1-8. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Level1 BE4A0

Level2 BE4A1

Level3 BE4A2

Level4 BE4A3

7-3-1-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.

Disable BE600

Enable BE601

7-3-1-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.

Disable BE610

Enable BE611

7-3-1-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to

enable or disable Normal Event Vibrator.

Disable BE620

Enable BE621

7-3-1-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable BE500

Enable BE501

7-3-1-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable BE510

Enable BE511

7-3-1-14. Enable/Disable Normal Event Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Mode Buzzer.

Disable BE520

Enable BE521

7-3-1-15. Set Data Transmission Unit

Scan the appropriate barcode to specify data transmission unit which will determine how the scanned barcodes will be sent out from the barcode reader in data transit. By default, barcode data will be transmitted in batches; alternatively, scan **1By1** label to transmit single barcode data at a time by giving Scan Button a press.

Normal BE7C0

1By1 BE7C1

7-3-1-16. Deletion of Transmitted Data

Scan the appropriate barcode to determine whether to delete saved barcode data in memory after data transmission is completed.

Disable BE7A0

Enable BE7A1

7-3-1-17. Enable/Disable Header Info

Scan the appropriate barcode to determine whether or not to transmit header information as part of transmitted data in Memory mode.

Disable BE760

Enable BE761

7-3-1-18. Enable/Disable Footer Info

Scan the appropriate barcode to determine whether or not to transmit footer information as part of transmitted data in Memory mode.

Disable BE770

Enable BE771

7-3-1-19. Set Good Read Buzzer Frequency

Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq BF8E0

(Length: 1 digit / Range: 0-255/ Unit: 100Hz)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1, 0,** and then **0** to assign the specified decimal value "100".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-1-20. Set Good Read Buzzer Duration

Please follow the below steps to specify buzzer duration when a barcode is decoded successfully.

BzGoodRdTime BF9E0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdTime** barcode to configure Good Read buzzer duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-1-21. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

ViberatorGoodRdTime BFAE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ViberatorGoodRdTime** barcode to configure Good Read Vibrator duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-1-22. Set Activation Duration

In general, after Scan Button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan button is held.

BarScanTime BFDE0

(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BarScanTime** barcode to configure activation duration.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcode representing the desired value in the range of 0 to 255. For instance, to set activation duration to be 2 seconds, then scan **2** to assign the specified decimal value "2".

the decimal value "2" by having the barcode scans sequenced as follows: **2**.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-3-1-23. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime BFEE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BarIdleTime** barcode to configure idle duration.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, then scan **3** to assign the specified decimal value "3".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-3-1-24. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime BFFE0

(Length: 1 digit / Range: 30-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **StandbyTime** barcode to configure idle duration.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 30 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value "30".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-3-2. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Memory mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style, and accordingly results in a subtle output layout which will benefit yourself from locating barcode data more efficiently.

7-3-2-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable C0000

Enable C0001

7-3-2-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable C0010

Enable C0011

7-3-2-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.

Disable C0020

Enable C0021

7-3-2-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.

Disable C0030

Enable C0031

7-3-2-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.

Disable C0040

Enable C0041

7-3-2-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.

Before C0050

After C0051

7-3-2-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If **Enabled**, length info will be prefixed to decoded barcode.

Disable C0060

Enable C0061

7-3-2-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.

Disable C0070

Enable C0071

7-3-2-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable C0100

Enable C0101

7-3-2-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable C0110

Enable C0111

7-3-2-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode**.**

Before C0120

After C0121

7-3-2-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.

Disable C0130

Enable C0131

7-3-2-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.

Disable C0140

Enable C0141

7-3-2-14. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is exactly the same to your previous scan. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.

Disable C0200

Enable C0201

7-3-2-15. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default, when the feature is enabled, the device will verify the barcode one more time. To secify the particular number of times for executing barcode verfication, please refer to **Section 6-2-23** in **Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable C0210

Enable C0211

7-3-2-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None C0380

Inverse C0381

Lower C0382

Upper C0383

7-3-2-17. Set Delimiter Between Date/Time Stamps and Barcode Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-3-2-10** to enable the relevant delimiter parameter as well.

DelimiterChar C0BE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **DelimiterChar** barcode to configure the delimiter.
(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-2-18. Set Delimiter Between Date and Time Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between date and time stamps to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-3-2-12** and **Section 7-3-2-13** to enable time and date stamps as well.

DateTimeSpareChar C0AE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **DateTimeSpareChar** barcode to configure the delimiter.

(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-3-2-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use Preamble Code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble Code.

PreambleChar C0CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PreambleChar** barcode to configure Preamble Code.
(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0** and then **A** to assign the specified hexadecimal value "0D0A".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-2-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both Suffix Code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.

PostambleChar C0EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PostambleChar** barcode to configure Postamble Code.
(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0, D, 0** and then **A** to assign the specified hexadecimal value "0D0A".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-2-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slight differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.

PrefixChar C10E5

(Length: 8 digits)

Procedure

(1) Scan Enter barcode.
(2) Scan **PrefixChar** barcode to configure Prefix Code.
(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be “ABCD”, scan **4, 1, 4, 2, 4, 3, 4,** and then **4** to assign the specified hexadecimal value "41424344".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-3-2-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.

SuffixChar C18E5

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **SuffixChar** barcode to configure Suffix Code.

(3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be “EFGH”, scan **4, 5, 4, 6, 4, 7, 4,** and then **8** to assign the specified hexadecimal value "45464748".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4. Bluetooth Mode

Please be advised the following parameters in this section simply works for the associated operations in Bluetooth mode. Make sure that you appropriately conduct the operations using Bluetooth mode.

7-4-1. Output Interface Options

In terms of output interface options, it is more about technical configuration regarding how you want barcode data to be transmitted between devices in Bluetooth mode before scanned barcode is further processed. Properly configure your scanner according to the realistic situation will lead to satisfactory data transmission performance.

7-4-1-1. Set Communication Protocol for SPP

Scan the appropriate barcode to specify the communication protocol for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

None AE1C0

0x06/0x15 AE1C1

Ack/Nak AE1C2

7-4-1-2. Enable/Disable <STX> and <ETX> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <STX> and <ETX> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

None AE1A0

STX/ETX AE1A1

7-4-1-3. Enable/Disable <BAR> and <CMD> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <BAR> and <CMD> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

Disable AE150

Enable AE151

7-4-1-4. Enable/Disable Command Mode for SPP

Scan the appropriate barcode to enable or disable Command mode for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

Disable AE170

Enable AE171

7-4-1-5. Set Transfer Count for Time Delay for SPP

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxCharGapCnt AEDE0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtSppTxCharGapCnt** barcode to configure the transfer count for time delay for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate time delay after every five digits are transmitted, then scan **5** to assign the specified decimal value "5".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-6. Set Time Delay for a Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxCharGapTime AEEE0

(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtSppTxCharGapTime** barcode to configure delay time for a digit for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2, 0,** and then **0** to assign the specified decimal value "200".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-7. Set Time Delay for a Record for SPP

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxGapTime AEFE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtSppTxGapTime** barcode to configure delay time for a record for SPP.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a record for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-1-8. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppExtTime AEBE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtSppExtTime** barcode to configure delay time for a specified digit for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a specified digit for 1 second, scan **1** to assign the specified decimal value "100".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-9. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxOtTime AECE0

(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtSppTxOtTime** barcode to configure timeout parameter for SPP.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 2 to 255. For instance, to set timeout period to 2 seconds, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

Enter

End

7-4-1-10. Set Retransmission Count for SPP

To avoid data transmission loss, messages sometimes have to be resent due to a failure to receive ACK signal. This parameter allows you to configure the number of attempting retransmission if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxAckCnt AE9E0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtSppTxAckCnt** barcode to configure timeout parameter for SPP.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set retransmission count to 1, then scan **1** to assign the specified decimal value "1".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-11. Set ACK timeout for SPP

ACK timeout refers to the allotted time to elapse for the receipt of ACK signal before timeout is initiated. This parameter allows you to specify the amount of time allocated for ACK timeout if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxAckTime AEAE0

(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtSppTxAckTime** barcode to configure ACK timeout for SPP.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 2 to 255. For instance, to set ACK timeout to be 3 seconds, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-1-12. Set Caps Lock setting for HID

This parameter provides the alternative to emulate Caps Lock which is a lock key to change the letter case of the typed alphabets. Read either **Caps Lock On** or **Caps Lock off** label to initiate the inversion of the letter case. However, in this case, the status of Caps Lock on your physical keyboard should be also taken into account. As to the mutual interaction between Caps lock key on the keyboard and the capital settings, please refer to the below chart to achieve the attempt. However, in addition to the two options mentioned earlier, there are one more alternatives for you to choose from as well: Scan **Alt+Keyoad** label to determine the letter case of typed alphabets by keystroke combinations of Alt + ASCII code , regardless of the status of Caps Lock key.

Example

ABCdef ABCdef

Cap Locks Status / Scanner Options	Caps Lock On	Caps Lock Off
Caps Lock On	ABCdef	abcDEF
Caps Lock Off	abcDEF	ABCdef
Alt+Keypad	ABCdef	ABCdef

Caps Lock Off AF0A1

Caps Lock On AF0A2

Alt+Keypad AF0A3

7-4-1-13. Enable/Disable Num Lock for HID

Scan the appropriate barcode to enable or disable Num Lock if the associated operations are performed using USB HID interface. When **AlphaPad** is enabled, regardless of the status of Num Lock key on your keyboard, the numeric symbols contained in the barcode data will be genuinely interpreted. On the other hand, scan **Num Lock** label to substitute arrow keys and Del, PgUp, PgDown keys for corresponding numeric keys to have effects on the decoded message when Num Lock is turned off.

AlphaPad AF060

NumPad AF061

7-4-1-14. Set IMEs for HID

IME is a program which allows users to input different sets of characters derived from different languages. Scan the appropriate barcode to specify active Input Method Editors if the associated operations are performed using USB HID interfaces.

EN AF1C0

UK AF1C1

JP AF1C2

FR AF1C3

GR AF1C4

IT AF1C5

SP AF1C6

PO AF1C7

SK AF1C8

7-4-1-15. Set Transfer Count for Time Delay for HID

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using USB HID interface.

BtHidTxCharGapCnt AFDE0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtHidTxCharGapCnt** barcode to configure the transfer count for time delay for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcode s representing the desired value in the range of 0 to 255. For instance, to initiate a timeout after 10 digits are transmitted, scan **1** first and then **0** to assign the specified decimal value "10".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-16. Set Time Delay for a Digit for HID

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit for HID if the associated operations are performed using USB HID interface.

BtHidTxCharGapTime AFEE0

(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtHidTxCharGapTime** barcode to configure delay time for a digit for HID.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2, 0** and then **0** to assign the specified decimal value "200".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-1-17. Set Time Delay for a Record for HID

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using USB HID interfaces.

BtHidTxGapTime AFFE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtHidTxGapTime** barcode to configure delay time for a record for HID.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-1-18. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtHidTxExtTime AFBE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtHidTxExtTime** barcode to configure delay time for a specified digit for HID.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 1 second, then scan **1** to assign the specified decimal value "10".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-19. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period for HID if the associated operations are performed using RS-232 or USB COM interfaces.

BtHidTxOtTime AFCE0

(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BtHidTxOtTime** barcode to configure timeout parameter for HID.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 2 to 255. For instance, to set the timeout period to be 3 seconds, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-1-20. Set PIN Code

Pin Code information is required to establish a Bluetooth connection. During the pairing process, you may be asked to enter Pin code for the verification to ensure the identity, and then granted the permission to access the device as a successful verification result. Please follow the below steps to configure Pin Code info.

BtPinCode B00E9

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtBtPinCode** barcode to configure Pincode parameter.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan desired decimal value barcodes representing the desired number which contains at most 8 digits. For instance, to set PIN code to be "1234", scan **1, 2, 3,** and then **4** to assign the specified decimal value "1234".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

7-4-1-21. Set Bluetooth Address

Mac Address information is required for the scanner to locate the Bluetooth devices, except for Bluetooth dongle A302/A303, for establishment of a Bluetooth connection. Please associate this parameter with the Bluetooth address of the Bluetooth device.

BtMacAddr B08FE

(Length: 12 digits; 0-F)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtMacAddr** barcode to configure Mac Address.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set Bluetooth Address to be "001C97FE16EC", scan **0, 0, 1, C, 9, 7, F, E, 1, 6, E** and then **C** to assign the specified hexadecimal value "001C97FE16EC".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-22. Set Machine Name

Machine Name refers to the name of the scanner and serves as an identification name for other Bluetooth devices, except for Bluetooth dongle A302/A303, to initiate the pairing process. Scan the below barcode to specify the preferred machine name for the scanner.

BtDevName B14E6

(Length: 12 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtDevName** barcode to configure the machine name.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set the device name to be "BT Scanner", scan **5, 2, 5, 4, 2, 0, 5, 3, 6, 3, 6, 1, 6, E, 6, E, 6, 5 ,7** and then **2** to assign the specified hexadecimal value "5254205363616E6E6572".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

7-4-1-23. Set Bluetooth address for Dongle A302/A303

Mac Address information is required for the scanner to locate Bluetooth dongle A302/303 for establishment of a Bluetooth connection. Please associate this parameter with the Bluetooth address of the Bluetooth device.

BtMacAddr B28FE

(Length: 12 digits; 0-F)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtMacAddr** barcode to configure Mac Address.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set Bluetooth Address to be “001C97FE16EC”, scan **0, 0, 1, C, 9, 7, F, E, 1, 6, E** and then **C** to assign the specified hexadecimal value “001C97FE16EC”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-1-24. Set Machine Name for Dongle A302/A303

Machine Name refers to the name of scanner and serves as an identification name especially for Bluetooth dongle A302/303 to initiate the pairing process. Scan the below barcode to specify the preferred machine name for the scanner.

BtDevName B34E6

(Length: 12 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BtDevName** barcode to configure the machine name.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set the device name to be “BT Scanner”, scan **5, 2, 5, 4, 2, 0, 5, 3, 6, 3, 6, 1, 6, E, 6, E, 6, 5 ,7** and then **2** to assign the specified hexadecimal value “5254205363616E6E6572”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-2. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-4-2-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcdoe. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correrspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff C4080

Momentary C4081

Continue C4082

Toogle C4083

7-4-2-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface which is used to establish a Bluetooth connection.

Slave C41D1

Master C41D2

Hid C41D3

iOS C41D4

A303 C41D5

A302 C41D6

7-4-2-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from initiating battery charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid blue LED light. By default, Small Trigger is set for maximum functionality without limit.

Disable C4290

Mem Tx C4292

Normal C4293

7-4-2-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes, and Small Trigger to initiate data transmission. In Bluetooth mode, Bluetooth paring is an extra function which can be initiated by pressing Small Trigger and Scan Button in a specified sequence described below: while holding Small Trigger till the blue LED light starts flashing rapidly, press down Scan Button at the same time and then release both buttons. Scan the appropriate label to enable or disable pairing functionality.

Disable C4280

Pair C4281

7-4-2-5. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well secured into host PC using an interface cable and switched to Bluetooth mode.

Disable C4300

Enable C4301

7-4-2-6. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.

Level1 C4480

Level2 C4481

Level3 C4482

Level4 C4483

7-4-2-7. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.

Level1 C4490

Level2 C4491

Level3 C4492

Level4 C4493

7-4-2-8. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Level1 C44A0

Level2 C44A1

Level3 C44A2

Level4 C44A3

7-4-2-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.

Disable C4600

Enable C4601

7-4-2-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.

Disable C4610

Enable C4611

7-4-2-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Vibrator.

Disable C4620

Enable C4621

7-4-2-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable C4500

Enable C4501

7-4-2-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable C4510

Enable C4511

7-4-2-14. Enable/Disable Mode Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Buzzer.

Disable C4520

Enable C4521

7-4-2-15. Set Pairing Timeout

Pairing Timeout refers to an amount of time allocated to the scanner for pairing with other Bluetooth devices. When timeout period expires yet the Bluetooth connection is not established, the pairing process will terminate due to the failed attempt. Please follow the below steps to configure pairing timeout.

PairingTime C57E0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PairingTime** barcode to configure Pairing Timeout.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set pairing timeout to be 20 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-16. Set Good Read Buzzer Frequency

Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq C58E0

(Length: 1 digit / Range: 0-255/ Unit: 100Hz)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1, 0** and then **0** to assign the specified decimal value "100".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-17. Set Good Read Buzzer Duration

Please follow the below steps to specify buzzer duration when a barcode is decoded successfully.

BzGoodRdTime C59E0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BzGoodRdTime** barcode to configure Good Read buzzer duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-18. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

ViberatorGoodRdTime C5AE0

(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ViberatorGoodRdTime** barcode to configure Good Read Vibrator duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-19. Set Activation Duration

In general, after Scan button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan button is held.

BarScanTime C5DE0

(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarScanTime** barcode to configure activation duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 5 to 255. For instance, to set activation duration to be 10 seconds, scan **1** first and then **0** to assign the specified decimal value "10".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-20. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime C5EE0

(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **BarIdleTime** barcode to configure idle duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, the scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-2-21. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime C5FE0

(Length: 1 digit / Range: 30-255/ Unit: 1000ms)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **StandbyTime** barcode to configure idle duration.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 30 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value "30".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-3. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Bluetooth mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style and accordingly results in a subtle output layout which will benefit users from locating barcode data more efficiently.

7-4-3-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable C6000

Enable C6001

7-4-3-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable C6010

Enable C6011

7-4-3-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.

Disable C0020

Enable C0021

7-4-3-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.

Disable C6030

Enable C0031

7-4-3-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.

Disable C6040

Enable C6041

7-4-3-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.

Before C6050

After C6051

7-4-3-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If **Enabled**, length info will be prefixed to decoded barcode.

Disable C6060

Enable C6061

7-4-3-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.

Disable C6070

Enable C6071

7-4-3-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable C6100

Enable C6101

7-4-3-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable C6110

Enable C6111

7-4-3-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode**.**

Before C6120

After C6121

7-4-3-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.

Disable C6130

Enable C6131

7-4-3-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.

Disable C6140

Enable C6141

7-4-3-14. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is exactly the same to your previous scan. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.

Disable C6200

Enable C6201

7-4-3-15. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default,

when the feature is enabled, the device will verify the barcode one more time. To secify the particular number of times for executing barcode verfication, please refer to **Section 6-2-23** in **Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable C6210

Enable C6211

7-4-3-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None C6380

Inverse C6381

Lower C6382

Upper C6383

7-4-3-17. Set Delimiter Between Date/Time Stamps and Barcdoe Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-4-3-10** to enable the relevant delimiter parameter as well.

DelimiterChar C6BE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **DelimiterChar** barcode to configure the delimiter.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-3-18. Set Delimiter Between Date and Time Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between date and time stamps to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-4-3-12** and **Section 7-4-3-13** to enable date and time stamps as well.

DateTimeSpareChar C6AE2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **DateTimeSpareChar** barcode to configure the delimiter.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use ";" character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value "3B".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-3-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use preamble code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble Code.

PreambleChar C6CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **PreambleChar** barcode to configure Preamble Code.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0,** and then A to assign the specified hexadecimal value “0D0A”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-3-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both Suffix Code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.

PostambleChar C6EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **PostambleChar** barcode to configure Postamble Code.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0, D, 0,** and then **A** to assign the specified hexadecimal value "0D0A".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

7-4-3-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slight differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.

PrefixChar C70E5

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **PrefixChar** barcode to configure Prefix Code.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be “ABCD”, scan **4, 1, 4, 2, 4, 3, 4,** and then **4** to assign the specified hexadecimal value "41424344".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

7-4-3-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.

SuffixChar C78E5

(Length: 8 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **SuffixChar** barcode to configure Suffix Code.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be “EFGH”, scan **4, 5, 4, 6, 4, 7, 4,** and then **8** to assign the specified hexadecimal value "45464748".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8. Symbology Configuration

This chapter is to present the supported symbol options, and to further illustrate how to work out the relevant symbology configurations. Before attempting every scan sequence, please refer to the configuration chart illustrated in Chapter 3 to ensure you do follow the correct procedures for setting up your scanner.

Configuring Symbology

8

8-1. Default Setting

Symbology	Enable/Disable	Code ID
UPC-A	Enabled	A
UPC-E	Enabled	E
EAN-13	Enabled	F
EAN-8	Enabled	FF
Code-39	Enabled	M
Interleaved 2 of 5	Disabled	I
Industrial 2 of 5	Disabled	J
Matrix 2 of 5	Disabled	G
Codabar/NW7	Enabled	N
Code-128	Enabled	K
Code-93	Disabled	L
Code-11	Disabled	O
BarMsi	Disabled	P
BartPlessey	Disabled	R
Telepen	Disabled	S
BarRss14	Disabled	T
BarRSsLimit	Disabled	U
BarRSSStk	Disabled	V
BarRSSExp	Disabled	W
BarRSSExpStk	Disabled	X

8-2. UPC-A

8-2-1. Enable/Disable UPC-A

Scan the appropriate barcode to determine whether or not to enable UPC-A

Disable D0000

Enable D0001

8-2-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D0010

Enable D0011

8-2-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for UPC-A symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deoce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-2-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.

None D0190

Addon 2 D0191

Addon 5 D0192

Addon 2+5 D0193

8-2-4. Transmit Check Digit

Scan the appropriate barcode to to determine whether to transmit the check digit.

Disable D0070

Enable D0071

8-2-5. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D0060

Enable D0061

8-2-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of UPC-A barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead D14E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every UPC-A symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-2-7. Removing Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of UPC-A barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd D15E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every UPC-A symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-2-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-2-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos D16E0
(Length: 1 digit / Range: 0-255)

Ins1Pos D17E0
(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configurations, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-2-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-2-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar D18E3

(Length: 2 digits)

Ins1PosChar D1AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configurations, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-2-10. Set Code ID for UPC-A

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for UPC-A.

ID D1CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for UPC-A to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value “4175”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-3. UPC-E

8-3-1. Enable/Disable UPC-E

Scan the appropriate barcode to determine whether or not to enable UPC-E.

Disable D2000

Enable D2001

8-3-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D2010

Enable D2011

8-3-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for UPC-E symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deoce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-2-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.

None D2190

Addon 2 D2191

Addon 5 D2192

Addon 2+5 D2193

8-3-4. Convert UPC-E to UPC-A

Enable this feature to convert 8-digit UPC-E code into 13-digit UPC-A barcodes by following encoding rules to supplement zeros characters

.

Disable D2020

Enable D2021

8-3-5. Transmit Check Digit

Scan the appropriate barcode to to determine whether to transmit the check digit.

Disable D2070

Enable D2071

8-3-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D2060

Enable D2061

8-3-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of UPC-E barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead D34E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every UPC-E symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-3-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of UPC-E barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd D35E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every UPC-E symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-3-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-2-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos D36E0

(Length: 1 digit / Range: 0-255)

Ins1Pos D37E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified deciaml value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-3-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-3-9**, the custom info will be accordingly inserted in the specific postion.That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar D38E3

(Length: 2 digits)

Ins1PosChar D3AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-3-11. Set Code ID for UPC-E

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for UPC-A.

ID D3CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for UPC-E to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-3-12. Set Sub Code ID for UPC-E

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of UPC-E, this parameter is used to identify those altered UPC-E barcodes which are adapted in compliance with UPC-A encoding standards. When the conversion function in **Section 8-3-4** is enabled, the device will send out Sub Code ID rather than the original Code ID as part of transmited data.

Sub ID D3EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Sub ID** barcode to tailor Code ID for UPC-E to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value “4175”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-4. EAN-13

8-4-1. Enable/Disable EAN-13

Scan the appropriate barcode to determine whether or not to enable EAN-13.

Disable D4000

Enable D4001

8-4-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D4010

Enable D4011

8-4-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for EAN-13 symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deoce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-4-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.

None D4190

Addon 2 D4191

Addon 5 D4192

Addon 2+5 D4193

8-4-4. Convert EAN-13 to ISBN/ISSN

Scan the appropriate barcode to determine whether or not to convert EAN-13 barcodes to ISBN/ISSN symbols.

Disable D4020

Enable D4021

8-4-5. Transmit Check Digit

Scan the appropriate barcode to to determine whether to transmit the check digit.

Disable D4070

Enable D4071

8-4-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D4060

Enable D4061

8-4-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of EAN-13 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead D54E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every EAN-13 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

Enter

End

8-4-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of EAN-13 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd D55E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every EAN-13 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-4-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-4-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos D56E0

(Length: 1 digit / Range: 0-255)

Ins1Pos D57E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified deciaml value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-4-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-4-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar D58E3

(Length: 2 digits)

Ins1PosChar D5AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-4-11. Set Code ID for EAN-13

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for EAN-13.

ID D5CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for EAN-13 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-4-12. Set Sub Code ID for EAN-13

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of EAN-13, Sub ID will appear only when symbology conversion from EAN-13 to ISBN/ISSN as indicated in

Seciton 8-4-4 is enabled. Please ensure the described parameter is enabled if Sub Code ID is expected to function effectively.

Sub ID D5EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Sub ID** barcode to tailor Code ID for EAN-13 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-5. EAN-8

8-5-1. Enable/Disable EAN-8

Scan the appropriate barcode to determine whether or not to enable EAN-8.

Disable D6000

Enable D6001

8-5-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D6010

Enable D6011

8-5-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for EAN-8 symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deoce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-5-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.

None D6190

Addon 2 D6191

Addon 5 D6192

Addon 2+5 D6193

8-5-4. Convert EAN-8 to EAN-13

Enable this feature to convert 8-digit EAN-8 codes into 13-digit EAN-13 barcodes by following encoding rules to supplement zeros characters

.

Disable D6020

Enable D6021

8-5-5. Transmit Check Digit

Scan the appropriate barcode to to determine whether to transmit the check digit.

Disable D6070

Enable D6071

8-5-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Enter

End

Disable D6060

Enable D6061

8-5-7. Remove Leading Charaters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of EAN-8 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead D74E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every EAN-8 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-5-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of EAN-8 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd D75E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every EAN-8 symbol, then scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-5-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-5-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos D76E0

(Length: 1 digit / Range: 0-255)

Ins1Pos D77E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

Enter

End

8-5-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-5-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar D78E3

(Length: 2 digits)

Ins1PosChar D7AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

Enter

End

8-5-11. Set Code ID for EAN-8

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for EAN-8.

ID D7CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for EAN-8 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-5-12. Set Sub Code ID for EAN-8

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of EAN-8, to transmit Sub Code ID as part of output data the particular functonality has to be enabled that compulsorily converts EAN-8 symbols to EAN-13. While setting up Sub Code ID for EAN-8, please also properly initiate the symbology conversion in Section 8-5-4 to have Sub Code ID come into effect.

Sub ID D7EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Sub ID** barcode to tailor Code ID for EAN-8 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value “4175”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-6. Code-39

8-6-1. Enable/Disable Code-39

Scan the appropriate barcode to determine whether or not to enable CodaBar.

Disable D8000

Enable D8001

8-6-2. Set Type of Code-39

This featuere allows you to determine whether to enable Code-39 Extended which particularly supports the encoding of certain special prefixed symbols, such as “/”, “%, “$” and “+”, in addition to the standard Code-39 character set. By default, the decoder is configured to read Code-39 Standard symbology. Otherwise, scan **Full ASCII** to support Code-39 Extended as an alternative.

Standard D8190

Full ASCII D8191

8-6-3. Set Format of Code-39

Three options are available to determine the format of Code-39: **Code-32**, as a variant of Code-39 symbology, generally applies similar Code39 character sets and encoding rules, but limits its own encoding character set to numberals (0-9) along with captical letters by filterings out the vowel symbols. **Code-32 with ‘A’**, based on the Code-39 encoding rules, will have “A” character prefixed to the barcode itself as an optional tranmitted digit. By default, **None** is set to apply **Code-39** format.

None D81A0

Code-32 D81A1

Code-32 with 'A' D81A2

8-6-4. Transmit Start/Stop Delimiters

Code-39 symbology contains asterisk characters as delimiters. Scan the appropriate barcode to determine whetehr to transmit the start and the end symbols of code-39 barcodes.

Disable D8030

Enable D8031

8-6-5. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable D8180

Enable D8181

8-6-6. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable D8070

Enable D8071

8-6-7. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D8060

Enable D8061

8-6-8. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Code39 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength D92E0

(Length: 1 digit/ Range: 0-255)

MaxLength D93E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-6-9. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-39 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead D94E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-39 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-6-10. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-39 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd D95E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-39 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-6-11. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-6-13** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos D96E0
(Length: 1 digit / Range: 0-255)

Ins1Pos D97E0
(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-6-12. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-6-12**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar D98E3

(Length: 2 digits)

Ins1PosChar D9AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-6-13. Set Code ID for Code-39

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-39.

ID D9CE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for EAN-8 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-6-14. Set Sub Code ID for Code-39

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of Code-39, it is necessary to configure Code-39 Type to be **Full ASCII** and Code-39 Format to be either **Code-32** or **Code-32 with 'A'** if Sub Code ID is expected to be part of transmitted data. While Sub Code ID for Code-39 is configured well, please also properly setting up the related features in **Section 8-6-2** and **8-6-3** to have the configurable pararmeter come into effect.

Sub ID D9EE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Sub ID** barcode to tailor Code ID for Code-39 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-7. Interleaved 2 of 5

8-7-1. Enable/Disable Interleaved 2 of 5

Scan the appropriate barcode to determine whether or not to enable Interleaved 2 of 5.

Disable DE000

Enable DE001

8-7-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable DE180

Enable DE181

8-7-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DE070

Enable DE071

8-7-4. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable DE060

Enable DE061

8-7-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Interleaved 2 of 5 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength DF2E0

(Length: 1 digit/ Range: 0-255)

MaxLength DF3E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-7-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Interleaved 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead DF4E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Interleaved 2 of 5 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-7-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Interleaved 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd DF5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Interleaved 2 of 5 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-7-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-7-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos DF6E0
(Length: 1 digit / Range: 0-255)

Ins1Pos DF7E0
(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

Enter

End

8-7-9. Set Content Message to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-7-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar DF8E3

(Length: 2 digits)

Ins1PosChar DFAE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-7-10. Set Code ID for Interleaved 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Interleaved 2 of 5.

ID DFCE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Interleaved 2 of 5 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

8-8. Industrial 2 of 5

8-8-1. Enable/Disable Industrial 2 of 5

Scan the appropriate barcode to determine whether or not to enable Industrial 2 of 5.

Disable E0000

Enable E0001

8-8-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable E0180

Enable E0181

8-8-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E0070

Enable E0071

8-8-4. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable E0060

Enable E0061

8-8-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Industrial 2 of 5 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength E12E0

(Length: 1 digit/ Range: 0-255)

MaxLength E13E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-8-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Industrial 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E14E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Industrial 2 of 5 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-8-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Industrial 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E15E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Industrial 2 of 5 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-8-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-8-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos E16E0

(Length: 1 digit / Range: 0-255)

Ins1Pos E17E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-8-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-8-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar E18E3

(Length: 2 digits)

Ins1PosChar E1AE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-8-10. Set Code ID for Industrial 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Industrial 2 of 5.

ID E1CE3
(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for Industrial 2 of 5 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 2 characters in length. For instance, to set its Code ID to be "11", scan **3, 1, 3,** and then **1** to assign the specified hexadecimal value "3131".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-9. Matrix 2 of 5

8-9-1. Enable/Disable Matrix 2 of 5

Scan the appropriate barcode to determine whether or not to enable Matrix 2 of 5.

Disable E2000

Enable E2001

8-9-2. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable E2060

Enable E2061

8-9-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E2070

Enable E2071

8-9-4. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism

to the scanned data.

Disable E2180

Enable E2181

8-9-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Matrix 2 of 5 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength E32E0

(Length: 1 digit/ Range: 0-255)

MaxLength E33E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-9-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Matrix 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E34E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.

(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Matrix 2 of 5 symbol, then scan **3** to assign the specified decimal value "3".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-9-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Matrix 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E35E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Matrix 2 of 5 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-9-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-9-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos E36E0

(Length: 1 digit / Range: 0-255)

Ins1Pos E37E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-9-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-9-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar E38E3

(Length: 2 digits)

Ins1PosChar E3AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-9-10. Set Code ID for Matrix 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Maxtrix 2 of 5.

ID E3CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for Maxtrix 2 of 5 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "39", scan **3, 3, 3,** and then **9** to assign the specified hexadecimal value "3339".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-10. Codabar/NW7

8-10-1. Enable/Disable Codabar/NW7

Scan the appropriate barcode to determine whether or not to enable Codabar/NW7.

Disable DC000

Enable DC001

8-10-2. Configure the Start/Stop Pattern

This feature allows you to specify the format of the 4-digit start/stop characters as part of the decoded Codabar symbol. Scan **ABCD/ABCD** label to output decoded message with its configured start and stop characters of 'ABCD'. As a substitute, you may also send out codes in other alternative forms: to transmit **abcd** as both start and stop symbols, to add **ABCD** and **TN*E** individually to the start and the end of transmitted Codabar data, or to use **abcd** and **tn*e** instead. Scan the appropriate barcode to specify which patterns you prefer to program the device.

ABCD/ABCE DC1A0

abcd/ abcd DC1A1

ABCD / TN *E DC1A2

abcd/tn*e DC1A3

8-10-3. Enable/Disable Symmetrical Start/Stop Pattern

Scan **Enable** label to decode a Codabar barcode which contains identical start and end characters.

Enter

End

Disable DC020

Enable DC021

8-10-4. Transmit Start/Stop Characters

Scan the appropriate barcode to determine whether or not to transmit the start and stop digits as part of output data.

Disable DC030

Enable DC031

8-10-5. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable DC180

Enable DC181

8-10-6. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DC070

Enable DC071

8-10-7. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable DC060

Enable DC061

8-10-8. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Codabar symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength DD2E0

(Length: 1 digit/ Range: 0-255)

MaxLength DD3E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-10-9. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead DD4E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Codabar symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-10-10. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd DD5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Codabar symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-10-11. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-9-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos DD6E0

(Length: 1 digit / Range: 0-255)

Ins1Pos DD7E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-10-12. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-9-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Enter

End

Ins0PosChar DD8E3

(Length: 2 digits)

Ins1PosChar DDAE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-10-13. Set Code ID for Codabar

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Codabar.

ID DDCE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Codabar to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "39", scan **3, 3, 3,** and then **9** to assign the specified hexadecimal value "3339".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-11. Code-128

8-11-1. Enable/Disable Code-128

Scan the appropriate barcode to determine whether or not to enable Code-128.

Disable DA000

Enable DA001

8-11-2. Set Format of Code-128

GS1-128 along with its formerly-named symbology UCC-128 are both viewed as the variant forms of Code-128 yet with their individual structure to denote the supplementary information. Scan **GS1-128** label to spcify GS1-128 as the barcode format whereas read **UCC-128** to rearrange bracode data according the structure of UCC-128. By default, the standard **Code-128** format is used to decode message.

Standard DA1A0

UCC-128 DA1A1

GS1-128 DA1A2

8-11-3. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable DA180

Enable DA181

8-11-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DA070

Enable DA071

8-11-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable DA060

Enable DA061

8-11-6. Set Application ID Separtor for UCC-128/GS1-128

Accroding to the encoding rules of UCC-128/GS1-128, the special existence of Application Identifier is used to identify the type of the supplementary info which is appended to the identifier itself. This feature primarily allows you to configure the preferred character to enclose application identifiers to further separate the application identifier from the appended message for better readability. However, the presentation of these configurable enclosed marks might slightly differ depending on which barcode format you specify in **Section 8-11-2**.

ConChar DB1E2

(Length: 1 digit)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ConChar** barcode to set application identifier separator for UCC-128/GS1-128.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use "-" to break down a Code 128 symbol into several units, scan **2** first, and then **D** to assign the specified hexadecimal value "2D".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-11-7. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Code-128 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength DB2E0

(Length: 1 digit/ Range: 0-255)

MaxLength DB3E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-11-8. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead DB4E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-128 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-11-9. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd DB5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-128 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-11-10. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-11-11** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos DB6E0

(Length: 1 digit / Range: 0-255)

Ins1Pos DB7E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-11-11. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-11-10**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar DB8E3

(Length: 2 digits)

Ins1PosChar DBAE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-11-12. Set Code ID for Code-128

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Codabar.

ID DBCE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Code-128 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "39", scan **3, 3, 3,** and then **9** to assign the specified hexadecimal value "3339".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-11-13. Set Sub Code ID for Code-128

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of Code-128, to specify the barcode format to be either **UCC-128** or **GS-128** is prerequisite for the configurable Sub Code ID to be present as part of transmitted data. Please refer to **Section 8-11-2** for the related configuration to make Sub Code ID take effect.

Sub ID DBEE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Sub ID** barcode to tailor Sub Code ID for Code-128 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Au", scan **4, 1, 7,** and then **5** to assign the specified hexadecimal value "4175".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-12. Code-93

8-12-1. Enable/Disable Code-93

Scan the appropriate barcode to determine whether or not to enable Code-93.

Disable E4000

Enable E4001

8-12-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data. By default, two check digits contained in Code-93 symbol will be used to enchance decoding accurency. As an option, you might either scan **One** barcode to have only one check character for error detection or read **Disable** label to skip the process.

Disable E4180

One E4181

Two E4182

8-12-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E4070

Enable E4071

8-12-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable E4060

Enable E4061

8-12-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Code-93 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength E52E0

(Length: 1 digit/ Range: 0-255)

MaxLength E53E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-12-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-93 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E54E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-93 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-12-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-93 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E55E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-93 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-12-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-12-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos E56E0

(Length: 1 digit / Range: 0-255)

Ins1Pos E57E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-12-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-12-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar E58E3

(Length: 2 digits)

Ins1PosChar E5AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-12-10. Set Code ID for Code-93

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-93.

ID E5CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Code-93 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "DM", scan **4, 4, 4,** and then **D** to assign the specified hexadecimal value "444D".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

8-13. Code-11

8-13-1. Enable/Disable Code-11

Scan the appropriate barcode to determine whether or not to enable Code-11.

Disable E6000

Enable E6001

8-13-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data. By default, two check digits contained in Code-11 symbol will be used to enchance decoding accurency if the length of decoded message is great than 10 digits. As an option, you might either scan **One** barcode to have only one check character for error detection for the barcodes of which the length is less than 10 digits or read **Disable** label to skip the process.

Disable E6180

One E6181

Two E6182

8-13-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E6070

Enable E6071

8-13-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable E6060

Enable E6061

8-13-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Code-11 symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength E72E0

(Length: 1 digit/ Range: 0-255)

MaxLength E73E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-13-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-11 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E74E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-11 symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-13-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-11 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E75E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-11 symbol, then scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-13-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-13-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos E76E0

(Length: 1 digit / Range: 0-255)

Ins1Pos E77E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-13-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-13-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar E78E3

(Length: 2 digits)

Ins1PosChar E7AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-13-10. Set Code ID for Code-11

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-11.

ID E7CE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Code-11 to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "NP", scan **4, 1, 5,** and then **0** to assign the specified hexadecimal value "4150".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-14. MSI

8-14-1. Enable/Disable MSI

Scan the appropriate barcode to determine whether or not to enable MSI.

Disable E8000

Enable E8001

8-14-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Out of four error detection mechanism which MSI symbolgoy provides, scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable E8180

Mod 10 E8181

Mod 10/10 E8182

Mode 11/10 E8183

8-14-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E8070

Enable E8071

8-14-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable E8060

Enable E8061

8-14-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for MSI symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength E92E0

(Length: 1 digit/ Range: 0-255)

MaxLength E93E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-14-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend

to remove forwards from the start of MSI barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E94E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every MSI symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-14-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of MSI barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E95E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every MSI symbol, then scan **2** to assign the specified decimal value "2".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-14-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-14-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos E96E0

(Length: 1 digit / Range: 0-255)

Ins1Pos E97E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-14-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-14-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar E98E3

(Length: 2 digits)

Ins1PosChar E9AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value “4142”.
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-14-10. Set Code ID for MSI

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for MSI.

ID E9CE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for MSI to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "UA", scan **5, 5, 4,** and then **1** to assign the specified hexadecimal value "5541".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-15. Plessey

8-15-1. Enable/Disable Plessey

Scan the appropriate barcode to determine whether or not to enable Plessey.

Disable EA000

Enable EA001

8-15-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable EA180

Enable EA181

8-15-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable EA070

Enable EA071

8-15-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message

by getting rid of leading zeros.

Disable EA060

Enable EA061

8-15-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Plessey symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength EB2E0

(Length: 1 digit/ Range: 0-255)

MaxLength EB3E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-15-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Plessey barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead EB4E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Plessey symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-15-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Plessey barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd EB5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Plessey symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-15-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-15-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos EB6E0

(Length: 1 digit / Range: 0-255)

Ins1Pos EB7E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-15-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-15-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar EB8E3

(Length: 2 digits)

Ins1PosChar EBAE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-15-10. Set Code ID for Plessey

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Plessey.

ID EBCE3
(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for Plessey to your needs, if necessary.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-16. Telepen

8-16-1. Enable/Disable Telepen

Scan the appropriate barcode to determine whether or not to enable Telepen.

Disable EC000

Enable EC001

8-16-2. Set Foramt of Telepen

Scan the appropriate barcode to determine the encoding system you prefer to decode Telepen barcodes. **Auto** format will automatically initiate the code swtich from ASCII to Numberic or vice versa depending on the presence or absence of ASCII DLE character.

Numeric EC190

ASCII EC191

Auto EC192

8-16-3. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode continas the check digit and to further apply the related error detection mechanism to the scanned data.

Disable EC180

Enable EC181

8-16-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable EC070

Enable EC071

8-16-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable EC060

Enable EC061

8-16-6. Set Minimun/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimux and maximum code length for Telepen symbolgoy, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Plesase refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from **MinLength** to **MaxLength** will be decoded.
MinLength > 0 and **MaxLength is undefined**	The barcode will be decoded only when its length is no less than **MinLength**.
MaxLength > 0 and **MinLength is undefined**	The length of the decoded barcode has to be no more than **MaxLength**.
MinLength = Max Length > 0	The barcode with the fixed length of **MinLength** or **MaxLength** will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either **MinLength** or **MaxLength**.
MinLength < 0 and **MaxLength < 0**	No code length limit is enforced.

MinLength ED2E0

(Length: 1 digit/ Range: 0-255)

MaxLength ED3E0

(Length: 1 digit/ Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-16-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Telepen barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead ED4E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Telepen symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-16-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Telepen barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd ED5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Telepen symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-16-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-16-10** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos ED6E0

(Length: 1 digit / Range: 0-255)

Ins1Pos ED7E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-16-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-16-9**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar ED8E3

(Length: 2 digits)

Ins1PosChar EDAE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-16-11. Set Code ID for Telepen

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Telepen.

ID EDCE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for Telepen to your needs, if necessary.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "Om", scan **4, F, 6,** and then **D** to assign the specified hexadecimal value "4F6D".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-17. GS1 Databar Omnidirectional (RSS-14)

8-17-1. Enable/Disable RSS-14

Scan the appropriate barcode to determine whether or not to enable RSS-14.

Disable EE000

Enable EE001

8-17-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable EE040

Enable EE041

8-17-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbolgoy ID, **]e0**.

Disable EE050

Enable EE051

8-17-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable EE070

Enable EE071

8-17-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable EE060

Enable EE061

8-17-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS-14 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead EF4E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.

(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS-14 symbol, then scan **3** to assign the specified decimal value "3".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

8-17-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS-14 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd EF5E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS-14 symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-17-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-17-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos EF6E0

(Length: 1 digit / Range: 0-255)

Ins1Pos EF7E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-17-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-17-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar EF8E3

(Length: 2 digits)

Ins1PosChar EFAE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-17-10. Set Code ID for RSS-14

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS-14.

ID EFCE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for RSS-14 to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "IM", scan **4, 9, 4,** and then **D** to assign the specified hexadecimal value "494D".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-18. GS1 Databar Limited(RSS Limited)

8-18-1. Enable/Disable RSS Limited

Scan the appropriate barcode to determine whether or not to enable RSS Limited.

Disable F0000

Enable F0001

8-18-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F0040

Enable F0041

8-18-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbolgoy ID, **]e0**.

Disable F0050

Enable F0051

8-18-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F0070

Enable F0071

8-18-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable F0060

Enable F0061

8-18-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Limited barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F14E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Limited symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-18-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Limited barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd F15E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of RSS Limited symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-18-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-18-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos F16E0

(Length: 1 digit / Range: 0-255)

Ins1Pos F17E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-18-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-18-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar F18E3

(Length: 2 digits)

Ins1PosChar F1AE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-18-10. Set Code ID for RSS Limited

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Limited.

ID F1CE3
(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for RSS Limited to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "IM", scan **4, 9, 4,** and then **D** to assign the specified hexadecimal value "494D".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-19. GS1 Databar Stacked(RSS-14 Stacked)

8-19-1. Enable/Disable RSS-14 Stacked

Scan the appropriate barcode to determine whether or not to enable RSS-14 Stacked.

Disable F2000

Enable F2001

8-19-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F2040

Enable F2041

8-19-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbolgoy ID, **]e0**.

Disable F2050

Enable F2051

8-19-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F2070

Enable F2071

8-19-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable F2060

Enable F2061

8-19-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS-14 Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F34E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS-14 Stacked symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-19-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS-14 Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd F35E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS-14 Stacked symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-19-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-19-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos F36E0

(Length: 1 digit / Range: 0-255)

Ins1Pos F37E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-19-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-19-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar F38E3

(Length: 2 digits)

Ins1PosChar F3AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-19-10. Set Code ID for RSS-14 Stacked

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS-14 Stacked.

ID F3CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan ID barcode to tailor Code ID for RSS-14 Stacked to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "25", scan **3, 2, 3,** and then **5** to assign the specified hexadecimal value "3235".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-20. GS1 Databar Expanded(RSS Expanded)

8-20-1. Enable/Disable RSS Expanded

Scan the appropriate barcode to determine whether or not to enable RSS Expanded.

Disable F4000

Enable F4001

8-20-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F4040

Enable F4041

8-20-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbolgoy ID, **]e0**.

Disable F4050

Enable F4051

8-20-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F4070

Enable F4071

8-20-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable F4060

Enable F4061

8-20-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Expanded barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F54E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.

(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Expanded symbol, then scan **3** to assign the specified decimal value "3".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

8-20-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Expanded barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd F55E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS Expanded symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-20-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-20-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos F56E0

(Length: 1 digit / Range: 0-255)

Ins1Pos F57E0

(Length: 1 digit / Range: 0-255)

Enter

End

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value "0".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-20-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-20-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar F58E3

(Length: 2 digits)

Ins1PosChar F5AE3

(Length: 2 digits)

Enter

End

Procedure

(1) Scan **Enter** barcode.
(2) Scan **Ins0PosChar** barcode to specify the message content.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
(6) Scan **End** barcode to complete the configuration.

8-20-10. Set Code ID for RSS Expanded

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Expanded.

ID F5CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **ID** barcode to tailor Code ID for RSS Expanded to your needs.
(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "JP", scan **4, A, 5,** and then **0** to assign the specified hexadecimal value "4A50".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-21. GS1 Databar Expanded Stacked(RSS Expanded Stacked)

8-21-1. Enable/Disable RSS Expaned Stacked

Scan the appropriate barcode to determine whether or not to enable RSS Expanded Stacked.

Disable F6000

Enable F6001

8-21-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F6040

Enable F6041

8-21-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbolgoy ID, **]e0**.

Disable F6050

Enable F6051

8-21-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F6070

Enable F6071

8-21-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether of not to shrink the barcode message by getting rid of leading zeros.

Disable F6060

Enable F6061

8-21-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Exapanded Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F74E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
(3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Exapanded Stacked symbol, then scan **3** to assign the specified decimal value "3".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-21-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Exapanded Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd F75E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.
(2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS Exapanded Stacked symbol, then scan **2** to assign the specified decimal value "2".
(4) Scan **SET** barcode to complete the variable-binding operation.
(5) Scan **End** barcode to complete the configuration.

8-21-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feture take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-21-9** which further demonstrates how to define what contains in inserted infroamtion. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.

Ins0Pos F76E0

(Length: 1 digit / Range: 0-255)

Ins1Pos F77E0

(Length: 1 digit / Range: 0-255)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-21-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-21-8**, the custom info will be accordingly inserted in the specific postion. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos.**

Ins0PosChar F78E3

(Length: 2 digits)

Ins1PosChar F7AE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **Ins0PosChar** barcode to specify the message content.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be "AB", scan **4, 1, 4,** and then **2** to assign the specified hexadecimal value "4142".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.

(6) Scan **End** barcode to complete the configuration.

8-21-10. Set Code ID for RSS Expanded Stacked

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Expanded Stacked.

ID F7CE3

(Length: 2 digits)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **ID** barcode to tailor Code ID for RSS Expanded Stacked to your needs.

(3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be "25", scan **3, 2, 3,** and then **5** to assign the specified hexadecimal value "3235".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Appendix A

Decimal/ Hexadecimal Table

0 %00

1 %01

2 %02

3 %03

4 %04

5 %05

6 %06

7 %07

8 %08

9 %09

A %0A

B %0B

C %0C

D %0D

E %0E

F %0F

Validate your configurations

SET %OK

ASCII Code Table

H / L	0(*)	1(*)	0	1	2	3	4	5	6	7
0	Null		NUL	DLE	SP	0	@	P	`	p
1	Up	F1	SOH	DC1	!	1	A	Q	a	q
2	Down	F2	STX	DC2	"	2	B	R	b	r
3	Left	F3	ETX	DC3	#	3	C	S	c	s
4	Right	F4	EOT	DC4	$	4	D	T	d	t
5	PgUp	F5	ENQ	NAK	%	5	E	U	e	u
6	PgDn	F6	ACK	SYN	&	6	F	V	f	v
7		F7	BEL	ETB	'	7	G	W	g	w
8	Bs	F8	BS	CAN	(	8	H	X	h	x
9	Tab	F9	HT	EM	)	9	I	Y	i	y
A		F10	LF	SUM	*	:	J	Z	j	z
B	Home	Esc	VT	ESC	+	;	K	[	k	{
C	End	F11	FF	FS	,	<	L	\	l	|
D	Enter	F12	CR	GS	-	=	M	]	m	}
E	Insert	Ctrl+	SO	RS	.	>	N	^	n	~
F	Delete	Alt+	SI	US	/	?	O	_	o	DEL

Note: (*) for keyboard wedge only.

Appendix B

Test Chart

UPC-A

EAN-13 with Add-on 5

(ISBN: 9572216678)

Code-39

(Full ASCII Code: *CODE39 Test*)

Interleaved 2 of 5

Code-93

Appendix B

Code-128

0123456789e
(UCC/EAN-128:]C10123456789e)

Codabar/NW7

C98765D D43210A

MSI/Plessey

10558302 5

CODE-11

8862647779733

UK/Plessey

16520003546 1

Telepen

TELEPEN Test+
(Numeric: 57424942534251055774888916)